



STIC Search Report

EIC 1700

STIC Database Tracking Number: 104011

**TO: Sow-Fun Hon
Location: CP3 11A11
Art Unit : 1772
September 17, 2003**

Case Serial Number: 10/075362

**From: Kathleen Fuller
Location: EIC 1700
CP3/4 3D62
Phone: 308-4290**

Kathleen.Fuller@uspto.gov

Search Notes



STIC Search Results Feedback Form

EIC17000

Questions about the scope or the results of the search? Contact *the EIC searcher* or contact:

Kathleen Fuller, EIC 1700 Team Leader
308-4290, CP3/4-3D62

308-4290, CP3/4-3D62

Voluntary Results Feedback Form

- I am an examiner in Workgroup: Example: 1713
- Relevant prior art **found**, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature
(journal articles, conference proceedings, new product announcements etc.)

- Relevant prior art **not found**:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to STIC/EIC1700 CP3/4 3D62



SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: SOW-FUN HUN Examiner #: 77463 Date: 09/16/03
 Art Unit: 1772 Phone Number 308-3265 Serial Number: 10/075,362
 Mail Box and Bldg/Room Location: CB 11A11 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: CELLULOSE ESTER FILM, ITS MANUFACTURING, ETC
 Inventors (please provide full names): KUNIO SHIMIZU, TAKASHI MURAKAMI

Earliest Priority Filing Date: 03/01/2001

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

- ① PLEASE SEARCH FORMULA (1)
 ② CROSS WITH CELLULOSE (ESTER, ACETATE, ACYL, DIACETATE, TRIACETATE)
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16

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Type of Search

Vendors and cost where applicable

Searcher: K. Fuller NA Sequence (#) _____ STN ✓
 Searcher Phone #: _____ AA Sequence (#) _____ Dialog _____
 Searcher Location: _____ Structure (#) 2 Questel/Orbit _____
 Date Searcher Picked Up: _____ Bibliographic _____ Dr.Link _____
 Date Completed: 9/17/03 Litigation _____ Lexis/Nexis _____
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STRUCTURE FILE UPDATES: 16 SEP 2003 HIGHEST RN 586945-00-8
DICTIONARY FILE UPDATES: 16 SEP 2003 HIGHEST RN 586945-00-8

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

Please note that search-term pricing does apply when
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Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP
PROPERTIES for more information. See STNote 27, Searching Properties
in the CAS Registry File, for complete details:
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

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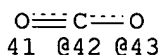
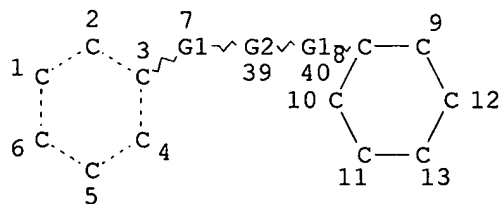
FILE COVERS 1907 - 17 Sep 2003 VOL 139 ISS 12
FILE LAST UPDATED: 16 Sep 2003 (20030916/ED)

This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> D QUE

L23

STR



37, 815 structures
from the
query

REP G1=(0-20) A
 VAR G2=42-7 43-40/43-7 42-40
 NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RSPEC I
 NUMBER OF NODES IS 18

STEREO ATTRIBUTES: NONE

L28 740120 SEA FILE=REGISTRY ABB=ON 46.150.1/RID
 L30 37815 SEA FILE=REGISTRY SUB=L28 SSS FUL L23
 L31 20301 SEA FILE=HCAPLUS ABB=ON L30
 L32 66 SEA FILE=HCAPLUS ABB=ON L31(L)?CELLULOS?
 L33 5 SEA FILE=HCAPLUS ABB=ON L31(L)?CELLULOS?(L)MOA/RL
 L34 13 SEA FILE=HCAPLUS ABB=ON L32 AND FILM?
 L35 495 SEA FILE=HCAPLUS ABB=ON L31(L)MOA/RL
 L36 27 SEA FILE=HCAPLUS ABB=ON L35 AND ?CELLULOS?
 L37 16 SEA FILE=HCAPLUS ABB=ON L36 AND (FILM# OR COATING?)
 L38 3 SEA FILE=HCAPLUS ABB=ON L32 AND LIQ?(3A)CRYST?
 L39 25 SEA FILE=HCAPLUS ABB=ON L33 OR L34 OR L37 OR L38

=> D L39 ALL 1-25 HITSTR

25 CA references

L39 ANSWER 1 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2003:653411 HCAPLUS
 DN 139:188413
 TI Curl-resistant optical **films** of good durability on use under hot
 and humid conditions, their manufacture, and LCD therewith
 IN Murakami, Takashi; Saito, Koichi
 PA Konica Co., Japan
 SO Jpn. Kokai Tokkyo Koho, 24 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM G02B005-30
 ICS B32B009-00; B32B023-04; B32B027-30; G02B001-10; G02B001-11;
 G02B005-02; G02F001-1335
 CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)
 Section cross-reference(s): 38, 73

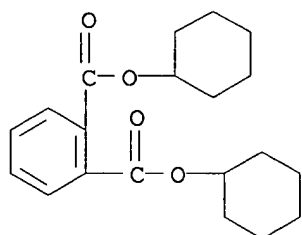
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003232920	A2	20030822	JP 2002-30824	20020207
PRAI	JP 2002-30824		20020207		

AB The **films** comprise **cellulose** ester substrates
 satisfying modulus 2800-4000 MPa when submerged in 60.degree. water and
 moisture permeability 20-850 g/m²24h at 40.degree. under RH 90% and having
 metal oxide layers on one side. The **films** may have UV-curable
 layers between the oxide layers and the substrates. In the manufg.
 process, the metal oxide layers are formed by plasma CVD.
 ST curl resistant antireflective **film cellulose** acetate;
 liq crystal display antireflective TAC **film**; acrylic urethane
 antiglare layer antireflective **film**

- IT Polyurethanes, preparation
 RL: DEV (Device component use); IMF (Industrial manufacture); TEM
 (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (acrylic, antiglare layers; manuf. of curl-resistant antireflective TAC
films of good durability under hot and humid conditions for LCD
 monitors)
- IT Fluoropolymers, preparation
 RL: DEV (Device component use); IMF (Industrial manufacture); TEM
 (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (antireflective layers; manuf. of curl-resistant antireflective TAC
films of good durability under hot and humid conditions for LCD
 monitors)
- IT Antireflective **films**
 Liquid crystal displays
 Plasticizers
 (manuf. of curl-resistant antireflective TAC **films** of good
 durability under hot and humid conditions for LCD monitors)
- IT Vapor deposition process
 (metalorg., plasma-enhanced, formation of antireflective
coatings by; manuf. of curl-resistant antireflective TAC
films of good durability under hot and humid conditions for LCD
 monitors)
- IT Vapor deposition process
 (plasma, metalorg., formation of antireflective **coatings** by;
 manuf. of curl-resistant antireflective TAC **films** of good
 durability under hot and humid conditions for LCD monitors)
- IT 67653-78-5P, Dipentaerythritol hexaacrylate homopolymer 219947-21-4P,
 Coronate L-Unidic 17-806 copolymer
 RL: DEV (Device component use); IMF (Industrial manufacture); TEM
 (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (antiglare layers; manuf. of curl-resistant antireflective TAC
films of good durability under hot and humid conditions for LCD
 monitors)
- IT 7631-86-9, Silica, uses
 RL: DEV (Device component use); MOA (Modifier or additive use); TEM
 (Technical or engineered material use); USES (Uses)
 (antiglare layers; manuf. of curl-resistant antireflective TAC
films of good durability under hot and humid conditions for LCD
 monitors)
- IT 13463-67-7P, Titania, preparation 69878-14-4P, Perfluoropropane
 homopolymer
 RL: DEV (Device component use); IMF (Industrial manufacture); TEM
 (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (antireflective **coatings**; manuf. of curl-resistant
 antireflective TAC **films** of good durability under hot and
 humid conditions for LCD monitors)
- IT 1332-29-2P, Tin oxide
 RL: DEV (Device component use); IMF (Industrial manufacture); TEM
 (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (antireflective layers; manuf. of curl-resistant antireflective TAC
films of good durability under hot and humid conditions for LCD
 monitors)
- IT 84-61-7, Dicyclohexyl phthalate 84-72-0, Ethylphthalylethyl
 glycolate 54547-34-1 113737-00-1
 RL: DEV (Device component use); MOA (Modifier or additive use);
 TEM (Technical or engineered material use); USES (Uses)
 (plasticizers in support **films**; manuf. of curl-resistant
 antireflective TAC **films** of good durability under hot and

humid conditions for LCD monitors)
 IT 9012-09-3, **Cellulose** triacetate
 RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
 (substrates; manuf. of curl-resistant antireflective TAC **films** of good durability under hot and humid conditions for LCD monitors)
 IT **84-61-7**, Dicyclohexyl phthalate
 RL: DEV (Device component use); **MOA (Modifier or additive use)**;
 TEM (Technical or engineered material use); USES (Uses)
 (plasticizers in support **films**; manuf. of curl-resistant antireflective TAC **films** of good durability under hot and humid conditions for LCD monitors)
 RN 84-61-7 HCAPLUS
 CN 1,2-Benzenedicarboxylic acid, dicyclohexyl ester (9CI) (CA INDEX NAME)



L39 ANSWER 2 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2003:609913 HCAPLUS
 DN 139:150668
 TI Method for preparing dope in production of **cellulose** triacetate **film**
 IN Ono, Seiichi; Kawase, Tsuneo
 PA Japan
 SO U.S. Pat. Appl. Publ., 21 pp.
 CODEN: USXXCO
 DT Patent
 LA English
 IC ICM B32B021-06
 NCL 428534000; 428473500; 428474400; 427331000
 CC 38-2 (Plastics Fabrication and Uses)
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003148134	A1	20030807	US 2003-355032	20030131
	JP 2003221449	A2	20030805	JP 2002-24993	20020201
	JP 2003225912	A2	20030812	JP 2002-27696	20020205
PRAI	JP 2002-24993	A	20020201		
	JP 2002-27696	A	20020205		

AB Title method for prepg. a dope by dissolving a polymer in a solvent comprises (A) roughly dissolving the polymer in the solvent; and (B) promoting the dissoln. by supplying the soln. roughly dissolved in the step (A) so as to prep. the dope. Thus, a **film** produced from the dope using the above procedure shows retardation of 40 nm, little optical anisotropy, and excellent optical performances.

ST **cellulose** triacetate **film** dope prepn
 IT Casting of polymeric materials

(co-; method for prep. dope in prodn. of **cellulose triacetate film**)

IT Optical **films**
Polarizing **films**
(method for prep. dope in prodn. of **cellulose triacetate film**)

IT 3864-99-1 25973-55-1
RL: MOA (Modifier or additive use); USES (Uses)
(UV absorber; method for prep. dope in prodn. of **cellulose triacetate film**)

IT 60842-32-2, Aerosil R972
RL: MOA (Modifier or additive use); USES (Uses)
(matting agent; method for prep. dope in prodn. of **cellulose triacetate film**)

IT 9012-09-3, **Cellulose triacetate**
RL: EPR (Engineering process); PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(method for prep. dope in prodn. of **cellulose triacetate film**)

IT 82504-70-9 **83982-11-0**
RL: **MOA (Modifier or additive use)**; USES (Uses)
(method for prep. dope in prodn. of **cellulose triacetate film**)

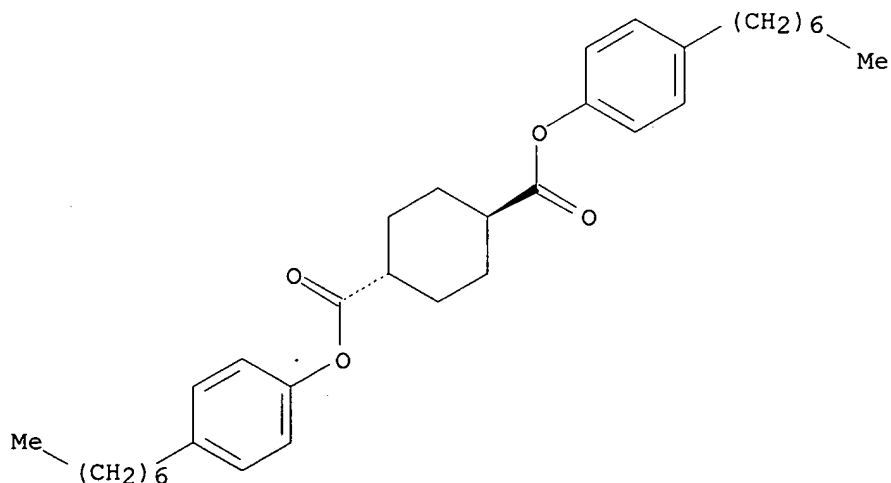
IT 115-86-6, Triphenyl phosphate 60893-79-0, Biphenyl diphenylphosphate
RL: MOA (Modifier or additive use); USES (Uses)
(plasticizer; method for prep. dope in prodn. of **cellulose triacetate film**)

IT **83982-11-0**
RL: **MOA (Modifier or additive use)**; USES (Uses)
(method for prep. dope in prodn. of **cellulose triacetate film**)

RN 83982-11-0 HCAPLUS

CN 1,4-Cyclohexanedicarboxylic acid, bis(4-heptylphenyl) ester, trans- (9CI)
(CA INDEX NAME)

Relative stereochemistry.



L39 ANSWER 3 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2003:607795 HCAPLUS
 DN 139:171339
 TI Optical **films**, antiglare antireflective **films**,
 polarizing plates, liquid crystal displays and manufacture method thereof
 IN Murakami, Takashi; Shimizu, Kunio
 PA Konica Co., Japan
 SO Jpn. Kokai Tokkyo Koho, 26 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM G02B005-30
 ICS B29C041-12; B29C055-02; B32B007-02; B32B009-00; B32B023-14;
 C23C016-40; C23C016-505; G02B001-11; C08K005-10; C08L001-10;
 B29K001-00; B29L007-00
 CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)
 Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003222723	A2	20030808	JP 2002-21384	20020130
PRAI	JP 2002-21384		20020130		

AB The **films** contain metal oxide thin **films** disposed
 directly or indirectly (e.g., via antiglare layers) on a **cellulose**
 ester (e.g., **cellulose** triacetate) **film** contg.
 polyester-polyurethanes. The **films** have good durability and
 whitening resistance under high temp. and moisture conditions.

ST polyester polyurethane **cellulose** triacetate optical **film**
 ; antiglare antireflective **film cellulose** triacetate;
 optical **film** antiglare antireflective polarizing plates liq
 crystal display

IT **Coating materials**
 (UV-curable, antiglare; durable optical **films** and antiglare
 antireflective **films** for polarizing plates and liq. crystal
 displays)

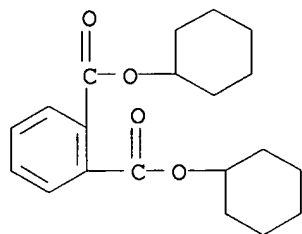
IT Antireflective **films**
 Liquid crystal displays
 Optical **films**
 Plasticizers
 Polarizing **films**
 (durable optical **films** and antiglare antireflective
films for polarizing plates and liq. crystal displays)

IT Polyurethanes, preparation
 RL: DEV (Device component use); IMF (Industrial manufacture); TEM
 (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (polyester-; durable optical **films** and antiglare
 antireflective **films** for polarizing plates and liq. crystal
 displays)

IT 67653-78-5, Dipentaerythritol hexaacrylate homopolymer 92171-34-1,
 Unidic 17-806
 RL: TEM (Technical or engineered material use); USES (Uses)
 (antiglare layers; durable optical **films** and antiglare
 antireflective **films** for polarizing plates and liq. crystal
 displays)

IT 9012-09-3P, **Triacetylcellulose** 9019-92-5P, Adipic
 acid-ethylene glycol-TDI copolymer 25931-01-5P, Adipic acid-ethylene
 glycol-MDI copolymer 26375-23-5P, Adipic acid-butylene glycol-MDI

copolymer 153847-12-2P
 RL: DEV (Device component use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (durable optical **films** and antiglare antireflective **films** for polarizing plates and liq. crystal displays)
 IT 7631-86-9, Silica, uses 13463-67-7, Titanium oxide, uses
 RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
 (durable optical **films** and antiglare antireflective **films** for polarizing plates and liq. crystal displays)
 IT 84-61-7, Dicyclohexyl phthalate 54547-34-1, Trimethylolpropane tribenzoate 113737-00-1
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
 (plasticizers; durable optical **films** and antiglare antireflective **films** for polarizing plates and liq. crystal displays)
 IT 84-61-7, Dicyclohexyl phthalate
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
 (plasticizers; durable optical **films** and antiglare antireflective **films** for polarizing plates and liq. crystal displays)
 RN 84-61-7 HCAPLUS
 CN 1,2-Benzenedicarboxylic acid, dicyclohexyl ester (9CI) (CA INDEX NAME)



L39 ANSWER 4 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2003:585421 HCAPLUS
 DN 139:141060
 TI Optical compensation **film** and its manufacture, circular polarizing plate, and image display device
 IN Hashimoto, Narikazu
 PA Fuji Photo Film Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 32 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM G02B005-30
 ICS B29C055-02; G02F001-1335; G02F001-1336; B29L007-00
 CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003215337	A2	20030730	JP 2002-11886	20020121
PRAI	JP 2002-11886		20020121		

AB Title optical compensation **film** has a retardation of 30-300 nm measured at 550 nm wavelength and has at least one of the characteristics of (A) moisture-induced retardation change <2 nm/% rh, (B) at least one of the moisture-induced dimensional changes in machine direction (MD) and transverse direction (TD) <7.5 .times. 10-3%/rh, (C) dehumidifying speed <0.35%/min, (D) temp.-induced retardation change <1.5 nm/degree, and (E) at least one of the thermal expansion coeffs. in MD and TD <3.5 .times. 10-4%/degree. A circular polarizing plate and an image display device using the optical compensation **film** are also claimed.

ST optical compensation **film** circular polarizing plate display device

IT Liquid crystal displays
Polarizing **films**
(optical compensation **film** for circular polarizing plate and image display device)

IT Polycarbonates, uses
RL: DEV (Device component use); POF (Polymer in formulation); USES (Uses)
(optical compensation **film** for circular polarizing plate and image display device)

IT Optical instruments
(retarders; optical compensation **film** for circular polarizing plate and image display device)

IT 9004-35-7, **Cellulose** acetate 9012-09-3, **Cellulose** triacetate
RL: DEV (Device component use); POF (Polymer in formulation); USES (Uses)
(optical compensation **film** for circular polarizing plate and image display device)

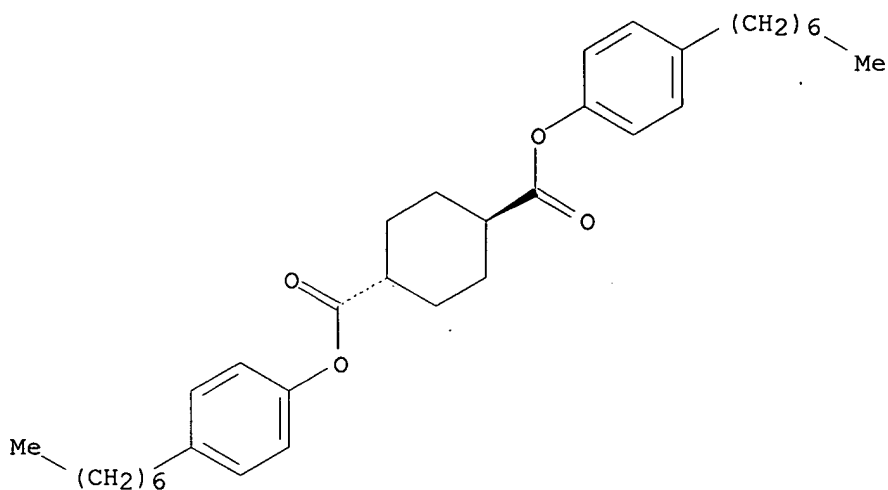
IT 82504-70-9 **83982-11-0**
RL: **MOA (Modifier or additive use)**; USES (Uses)
(optical compensation **film** for circular polarizing plate and image display device)

IT **83982-11-0**
RL: **MOA (Modifier or additive use)**; USES (Uses)
(optical compensation **film** for circular polarizing plate and image display device)

RN 83982-11-0 HCAPLUS

CN 1,4-Cyclohexanedicarboxylic acid, bis(4-heptylphenyl) ester, trans- (9CI)
(CA INDEX NAME)

Relative stereochemistry.



L39 ANSWER 5 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2003:167225 HCAPLUS
 DN 138:206138
 TI Polymer-based optical compensator for polarizer in liquid crystal display
 IN Hashimoto, Narikazu
 PA Fuji Photo Film Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 13 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM G02B005-30
 ICS C08J005-18; G02F001-1335; G02F001-1336; C08L001-12
 CC 38-3 (Plastics Fabrication and Uses)
 Section cross-reference(s): 74

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003066230	A2	20030305	JP 2001-252499	20010823
PRAI	JP 2001-252499		20010823		

AB Title optical compensator with wide angle of visibility and few color spots is characterized by retardation in the plane 20-70 nm, retardation in the thickness direction 70-400 nm, curl .ltoreq.20 m-1, and angle difference between the slow axis and the stretching direction .ltoreq.5.degree.. Thus, a **cellulose** acetate compn. was cast, stretched in the transverse direction 1.28 times to give an optical **film** satisfying the above specification.

ST **cellulose** acetate optical compensator polarizer liq crystal display

IT Liquid crystals

(discotic, anisotropic **coating** layer contg.; polymer-based optical compensator for polarizer in liq. crystal display)

IT Liquid crystal displays

Polarizers

(polymer-based optical compensator for polarizer in liq. crystal display)

IT Optical instruments

(retarders; polymer-based optical compensator for polarizer in liq.

crystal display)

IT 9002-89-5, PVA
 RL: TEM (Technical or engineered material use); USES (Uses)
 (I2-doped, polarizer; polymer-based optical compensator for polarizer
 in liq. crystal display)

IT 180570-45-0P
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM
 (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (anisotropic **coating** layer contg.; polymer-based optical
 compensator for polarizer in liq. crystal display)

IT 9004-36-8, CAB 551-0.2
 RL: MOA (Modifier or additive use); USES (Uses)
 (anisotropic **coating** layer contg.; polymer-based optical
 compensator for polarizer in liq. crystal display)

IT 25213-24-5D, derivs., polymers with glutaraldehyde
 RL: TEM (Technical or engineered material use); USES (Uses)
 (oriented **film** contg.; polymer-based optical compensator for
 polarizer in liq. crystal display)

IT 9004-35-7, **Cellulose** acetate
 RL: PEP (Physical, engineering or chemical process); POF (Polymer in
 formulation); PRP (Properties); PYP (Physical process); TEM (Technical or
 engineered material use); PROC (Process); USES (Uses)
 (polymer-based optical compensator for polarizer in liq. crystal
 display)

IT 111-30-8D, Glutaraldehyde, polymers with modified poly(vinyl alc.)
 RL: TEM (Technical or engineered material use); USES (Uses)
 (polymer-based optical compensator for polarizer in liq. crystal
 display)

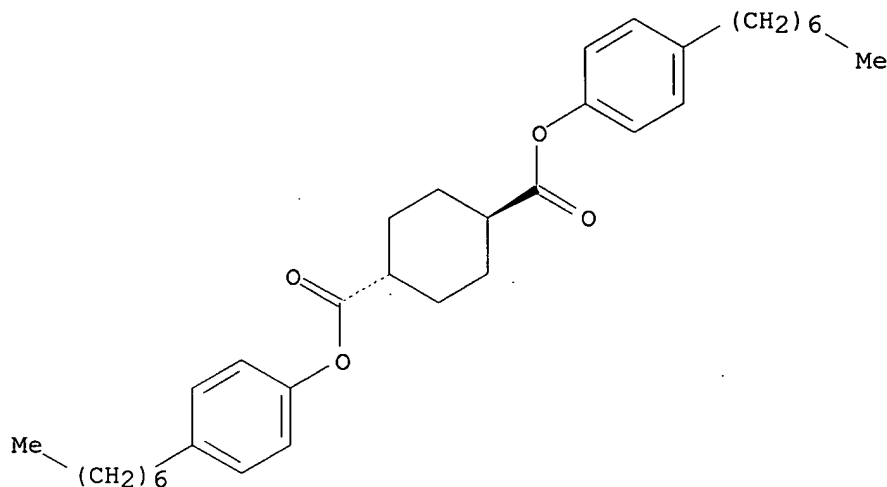
IT 82504-70-9 **83982-11-0**
 RL: MOA (**Modifier or additive use**); USES (Uses)
 (retardation controller; polymer-based optical compensator for
 polarizer in liq. crystal display)

IT **83982-11-0**
 RL: MOA (**Modifier or additive use**); USES (Uses)
 (retardation controller; polymer-based optical compensator for
 polarizer in liq. crystal display)

RN 83982-11-0 HCAPLUS

CN 1,4-Cyclohexanedicarboxylic acid, bis(4-heptylphenyl) ester, trans- (9CI)
 (CA INDEX NAME)

Relative stereochemistry.



L39 ANSWER 6 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2003:167218 HCAPLUS
 DN 138:212589
 TI Temperature and moisture resistant cellulose ester optical **film**
 and its production method
 IN Murakami, Takashi; Fukuda, Kazuhiro
 PA Konica Co., Japan
 SO Jpn. Kokai Tokkyo Koho, 20 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM G02B001-10
 ICS B01J019-08; B32B023-04; C23C016-40; G02B005-30; H05H001-46
 CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related
 Properties)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003066202	A2	20030305	JP 2001-261378	20010830
PRAI	JP 2001-261378		20010830		

AB The invention refers to a temp. and moisture resistant optical **film**, formed by placing a metal compd. layer on a cellulose ester **film** having a width change < 0.2% after heating for 5 h and returning to room temp., and a change of < 0.3% after treatment for 50 h under high moisture and high temp.

ST optical **film** cellulose ester heat resistance moisture resistance

IT Optical **films**

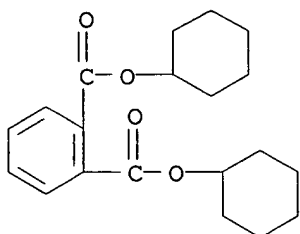
Thermal resistance

(temp. and moisture resistant cellulose ester optical **film**
 and its prodn. method)

IT **84-61-7**, Dicyclohexyl phthalate 84-72-0, Ethyl phthalyl ethyl glycolate 115-86-6, Triphenyl phosphate 3896-11-5, Tinuvin 326 7631-86-9, Aerogel 200, uses 9004-39-1, Cellulose acetate propionate 9012-09-3, Cellulose triacetate 23328-53-2, Tinuvin 171 67653-78-5, Dipentaerythritol hexa acrylate homopolymer 83044-89-7, Tinuvin 109
 RL: DEV (Device component use); USES (Uses)

(temp. and moisture resistant **cellulose** ester optical

IT **film** and its prodn. method)
84-61-7, Dicyclohexyl phthalate
 RL: DEV (Device component use); USES (Uses)
 (temp. and moisture resistant **cellulose** ester optical
film and its prodn. method)
 RN 84-61-7 HCAPLUS
 CN 1,2-Benzenedicarboxylic acid, dicyclohexyl ester (9CI) (CA INDEX NAME)



L39 ANSWER 7 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2003:143477 HCAPLUS
 DN 138:195981
 TI Optically anisotropic drawn **films** for retarders and circularly
 polarizing plates, their manufacture, and liquid crystal displays
 assembled with the same
 IN Hashimoto, Narikazu
 PA Fuji Photo Film Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 21 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM G02B005-30
 ICS B29C055-02; C08J005-18; G02F001-1335; G02F001-1336; B29K001-00;
 B29K105-32; B29L007-00; C08L001-12
 CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)
 Section cross-reference(s): 73

FAN.CNT 1

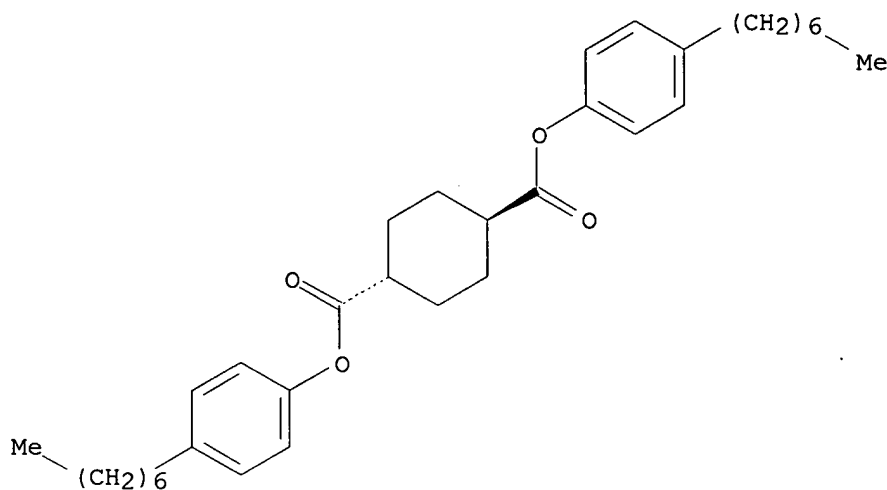
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003057444	A2	20030226	JP 2001-249302	20010820
PRAI	JP 2001-249302		20010820		

AB The optically anisotropic drawn **films** showing good viewing angle
 and uniform color, useful for $\lambda/4$ plates, have retardation
 satisfying $0.60 < \text{Re}(450)/\text{Re}(550) < 0.97$ and $1.01 < \text{Re}(650)/\text{Re}(550) < 1.35$
 $[\text{Re}(450), \text{Re}(550), \text{Re}(650) = \text{in-plane retardation values at wavelengths}$
 $450, 550, \text{ and } 650 \text{ nm, resp.}]$, and variations in $\text{Re}(550)$ in width and
 longitudinal directions, and variations in thicknesses in the width and
 longitudinal directions are all $\leq 10\%$. Preferably, the
films at least contain 0.5-15% retardation improvers bearing 2
 arom. rings. Preferably, the **films** comprise **cellulose**
 acetate with acetylation degree 2.4-2.9. The process employs 2 pairs of
 nip rolls disposed with a spun of 2-8-folds of **film** width before
 drawing, and drawing is run while controlling the temp. of the edges
 $5-50^\circ\text{C}$. higher than that of the center. The retarders satisfy the
 conditions given for the drawn **films** and also $100 < \text{Re}(550) < 160$
 (nm). The circularly polarizing plate for the LCD comprises the retarder

and a **film** polarizer laminated in such a way that the in plane slow axis of the retarder is on a 45.degree. angle with the polarizing axis of the polarizer.

- ST liq crystal display circularly polarizing plate; optically anisotropic drawn **film** LCD; **cellulose** acetate retarder liq crystal display; arom retardation improver optically anisotropic **film**; quarter wave plate liq crystal display
- IT Polarizing **films**
 (manuf. of optically anisotropic drawn **films** for retarders and circularly polarizing plates for LCD)
- IT Liquid crystal displays
 (reflection, guest-host; manuf. of optically anisotropic drawn **films** for retarders and circularly polarizing plates for LCD)
- IT Liquid crystal displays
 (reflection; manuf. of optically anisotropic drawn **films** for retarders and circularly polarizing plates for LCD)
- IT Optical instruments
 (retarders; manuf. of optically anisotropic drawn **films** for retarders and circularly polarizing plates for LCD)
- IT 9004-35-7, **Cellulose** acetate
 RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
 (manuf. of optically anisotropic drawn **films** for retarders and circularly polarizing plates for LCD)
- IT 82504-70-9 **83982-11-0**
 RL: MOA (**Modifier or additive use**); TEM (Technical or engineered material use); USES (Uses)
 (retardation improver; manuf. of optically anisotropic drawn **films** for retarders and circularly polarizing plates for LCD)
- IT **83982-11-0**
 RL: MOA (**Modifier or additive use**); TEM (Technical or engineered material use); USES (Uses)
 (retardation improver; manuf. of optically anisotropic drawn **films** for retarders and circularly polarizing plates for LCD)
- RN 83982-11-0 HCAPLUS
- CN 1,4-Cyclohexanedicarboxylic acid, bis(4-heptylphenyl) ester, trans- (9CI)
 (CA INDEX NAME)

Relative stereochemistry.



L39 ANSWER 8 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2003:87116 HCAPLUS
 DN 138:145168
 TI **Cellulose** multilayered **films**, their manufacture, and optical **films**, polarizing sheets, and displays using them
 IN Michihata, Isamu; Murakami, Takashi
 PA Konica Co., Japan
 SO Jpn. Kokai Tokkyo Koho, 25 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM B32B023-20
 ICS B29C041-32; B32B023-14; G02B005-30; B29K001-00; B29L009-00
 CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 38, 73

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003033998	A2	20030204	JP 2002-69994	20020314
PRAI	JP 2001-144589	A	20010515		
AB	The multilayered films have (A) .gtoreq.1 surface layers contg. fine particles and (B) substrate layers contg. (a) nonphosphate plasticizers and UV absorbers or (b) additives having .gtoreq.3 arom. groups or cycloalkyl groups. The films are manufd. by co-applying or successive applying surface-layer dopes contg. .gtoreq.0.02% fine particles with primary particle size 1-20 nm and .gtoreq.0 and <2% nonphosphate plasticizers and substrate-layer dopes contg. 2-10% nonphosphate plasticizers. The optical films show low moisture permeability, good dimensional stability, and low haze.				
ST	cellulose multilayer optical film moisture permeability; UV absorber cellulose multilayer optical film ; nonphosphate plasticizer cellulose multilayer optical film ; polarizer cellulose multilayer film dimensional stability; liq crystal display cellulose optical film				
IT	Liquid crystal displays				

(color; manuf. of **cellulose** multilayered **films** with low moisture permeability for displays)

IT Water-resistant materials
(**films**; manuf. of **cellulose** multilayered **films** with low moisture permeability for displays)

IT Laminated plastic **films**
UV stabilizers
(manuf. of **cellulose** multilayered **films** with low moisture permeability for displays)

IT Optical **films**
(multilayer; manuf. of **cellulose** multilayered **films** with low moisture permeability for displays)

IT Plasticizers
(nonphosphates; manuf. of **cellulose** multilayered **films** with low moisture permeability for displays)

IT Polarizers
(protective **films** for; manuf. of **cellulose** multilayered **films** with low moisture permeability for displays)

IT **Films**
(water-resistant; manuf. of **cellulose** multilayered **films** with low moisture permeability for displays)

IT 3896-11-5, Tinuvin 326 23328-53-2, Tinuvin 171 83044-89-7, Tinuvin 109 103597-45-1, LA 31
RL: DEV (Device component use); MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(UV absorbers; manuf. of **cellulose** multilayered **films** with low moisture permeability for displays)

IT 7631-86-9, Aerosil TT 600, uses
RL: DEV (Device component use); MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(fine particles; manuf. of **cellulose** multilayered **films** with low moisture permeability for displays)

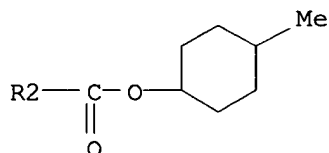
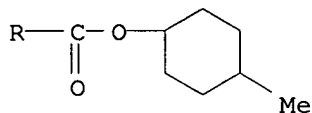
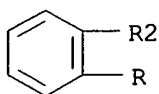
IT 9004-39-1, **Cellulose** acetate propionate 9012-09-3, **Cellulose** triacetate
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(manuf. of **cellulose** multilayered **films** with low moisture permeability for displays)

IT 84-62-8 **18249-11-1** 19851-61-7
RL: DEV (Device component use); MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(plasticizers; manuf. of **cellulose** multilayered **films** with low moisture permeability for displays)

IT **18249-11-1**
RL: DEV (Device component use); MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(plasticizers; manuf. of **cellulose** multilayered **films** with low moisture permeability for displays)

RN 18249-11-1 HCAPLUS

CN 1,2-Benzenedicarboxylic acid, bis(4-methylcyclohexyl) ester (9CI) (CA INDEX NAME)

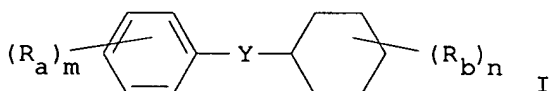


L39 ANSWER 9 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2002:850019 HCAPLUS
 DN 137:354564
 TI Solution casting process of **cellulose ester film** and
 its application in polarizing plate for **liquid crystal**
 display
 IN Shimizu, Kunio; Murakami, Takashi; Kobayashi, Toru
 PA Japan
 SO U.S. Pat. Appl. Publ., 22 pp.
 CODEN: USXXCO
 DT Patent
 LA English
 IC ICM C08B003-16
 NCL 106170280
 CC 43-3 (Cellulose, Lignin, Paper, and Other Wood Products)
 Section cross-reference(s): 42, 75

applicant

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002162483	A1	20021107	US 2002-75362	20020214
	JP 2003165868	A2	20030610	JP 2001-390729	20011225
PRAI	JP 2001-56648	A	20010301		
	JP 2001-288941	A	20010921		
OS	MARPAT 137:354564				
GI					



AB **Cellulose ester film** with thickness of 10 - 60 .mu.m
 and moisture vapor transmittance of 20 - 200 g/m2.24 h is obtained by
 casting soln., which is composed of 1 - 30 wt. % of compd. I, wherein Y is

an ester bond or a divalent org. group contg. an ester bond, Ra and Rb independently represent a substituent, and m, n = 0 - 5, and Ras or Rbs may be the same or different if m, n .gtoreq. 2, UV absorbent, silicon oxide and Me acetate, on a support to form a web, drying for 30 - 90 s., peeling from the support, and further drying; the prepd. **cellulose ester film** can be used as a polarizing plate for **liq. crystal** display. Thus, mixt. of compds. presented by I, UV absorbents, particles Aerostl 200V, acetyl **cellulose** with an acetyl substitution degree of 2.7, were dissolved in methylene chloride and ethanol solns. to form the **cellulose ester soln.**, which was then cooled to casting on stainless steel, heated, blown, dried and peeled from the substrate to obtain the **cellulose ester film** after further drying and stretching for 1.05 times in the transverse direction; the **cellulose ester film** was treated with sodium hydroxide soln., and then laminated onto a polarized polyvinyl alc. **film**, pressurized and dried to obtain a polarizing plates, which were superposed on both sides of a com. **liq. crystal** cell in certain directions to prep. a **liq. crystal** panel, followed by installing in a color **liq. crystal** display.

- ST **cellulose ester film** polarizing plate **liq. crystal** display; soln casting **cellulose ester film** UV absorbent silicon oxide; methyl acetate support web **cellulose ester film**
- IT Casting of polymeric materials
 Coating materials
 Laminated materials
 Liquid crystal displays
 Polarizing **films**
 UV stabilizers
 (soln. casting process of **cellulose ester film** and its application in polarizing plate for **liq. crystal** display)
- IT Esters, uses
 RL: NUU (Other use, unclassified); USES (Uses)
 (soln. casting process of **cellulose ester film** and its application in polarizing plate for **liq. crystal** display)
- IT 3846-71-7 3896-11-5 83044-89-7 247578-70-7
 RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
 (UV absorbent; soln. casting process of **cellulose ester film** and its application in polarizing plate for **liq. crystal** display)
- IT 7631-86-9, Aerosil 200V, uses
 RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
 (colloidal, particles; soln. casting process of **cellulose ester film** and its application in polarizing plate for **liq. crystal** display)
- IT 79-20-9, Methyl acetate
 RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
 (particles; soln. casting process of **cellulose ester film** and its application in polarizing plate for **liq.**

crystal display)

IT 9002-89-5, Polyvinyl alcohol
 RL: TEM (Technical or engineered material use); USES (Uses)
 (polarizing **film**; soln. casting process of **cellulose**
 ester **film** and its application in polarizing plate for
 liq. **crystal display)**

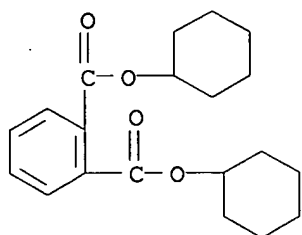
IT 84-61-7 18062-80-1 18062-83-4
 18249-11-1 18699-42-8 18699-51-9
 38411-11-9 59935-81-8 68453-09-8
 70443-67-3 102957-93-7 113203-40-0
 129840-58-0 474264-64-7 474264-65-8
 474264-66-9 474264-67-0 474264-68-1
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 474264-72-7 474264-73-8 474264-74-9
 474264-75-0 474264-76-1 474264-77-2
 474264-78-3 474264-79-4 474264-80-7
 RL: MOA (Modifier or additive use); PEP (Physical, engineering
 or chemical process); PRP (Properties); PYP (Physical process); TEM
 (Technical or engineered material use); PROC (Process); USES (Uses)
 (soln. casting process of **cellulose** ester **film** and
 its application in polarizing plate for liq. **crystal**
 display)

IT 9004-35-7, Acetyl **cellulose** 9004-39-1, **Cellulose**
 acetate propionate 9012-09-3, Triacetyl **Cellulose**
 RL: PEP (Physical, engineering or chemical process); POF (Polymer in
 formulation); PRP (Properties); PYP (Physical process); TEM (Technical or
 engineered material use); PROC (Process); USES (Uses)
 (soln. casting process of **cellulose** ester **film** and
 its application in polarizing plate for liq. **crystal**
 display)

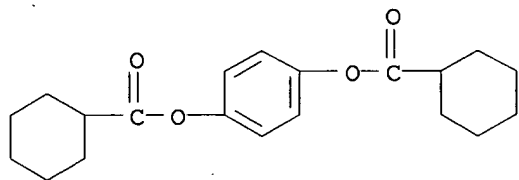
IT 12597-68-1, Stainless steel, miscellaneous
 RL: MSC (Miscellaneous)
 (support; soln. casting process of **cellulose** ester
film and its application in polarizing plate for liq.
crystal display)

IT 84-61-7 18062-80-1 18062-83-4
 18249-11-1 18699-42-8 18699-51-9
 38411-11-9 59935-81-8 68453-09-8
 70443-67-3 102957-93-7 113203-40-0
 129840-58-0 474264-64-7 474264-65-8
 474264-66-9 474264-67-0 474264-68-1
 474264-69-2 474264-70-5 474264-71-6
 474264-72-7 474264-73-8 474264-74-9
 474264-75-0 474264-76-1 474264-77-2
 474264-78-3 474264-79-4 474264-80-7
 RL: MOA (Modifier or additive use); PEP (Physical, engineering
 or chemical process); PRP (Properties); PYP (Physical process); TEM
 (Technical or engineered material use); PROC (Process); USES (Uses)
 (soln. casting process of **cellulose** ester **film** and
 its application in polarizing plate for liq. **crystal**
 display)

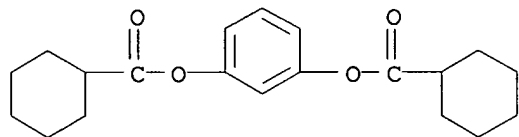
RN 84-61-7 HCAPLUS
 CN 1,2-Benzenedicarboxylic acid, dicyclohexyl ester (9CI) (CA INDEX NAME)



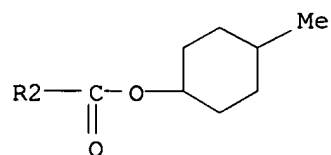
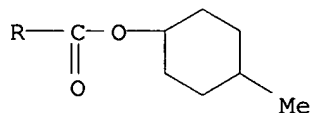
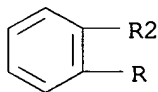
RN 18062-80-1 HCAPLUS
 CN Cyclohexanecarboxylic acid, 1,4-phenylene ester (9CI) (CA INDEX NAME)



RN 18062-83-4 HCAPLUS
 CN Cyclohexanecarboxylic acid, 1,3-phenylene ester (9CI) (CA INDEX NAME)

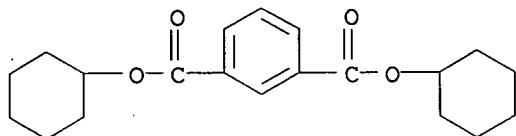


RN 18249-11-1 HCAPLUS
 CN 1,2-Benzenedicarboxylic acid, bis(4-methylcyclohexyl) ester (9CI) (CA INDEX NAME)



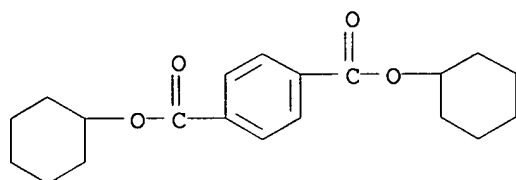
RN 18699-42-8 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, dicyclohexyl ester (9CI) (CA INDEX NAME)



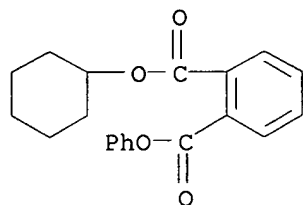
RN 18699-51-9 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, dicyclohexyl ester (9CI) (CA INDEX NAME)



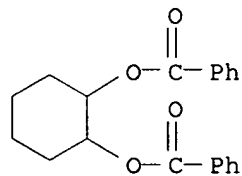
RN 38411-11-9 HCAPLUS

CN 1,2-Benzenedicarboxylic acid, cyclohexyl phenyl ester (9CI) (CA INDEX NAME)



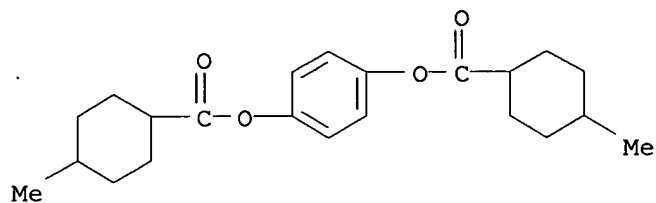
RN 59935-81-8 HCAPLUS

CN 1,2-Cyclohexanediol, dibenzoate (6CI, 9CI) (CA INDEX NAME)

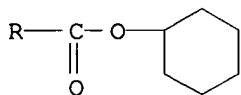
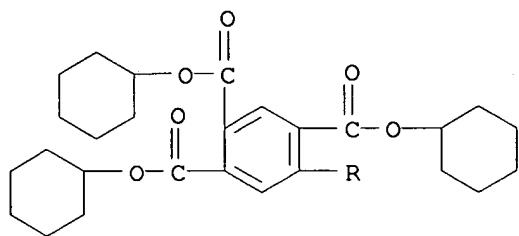


RN 68453-09-8 HCAPLUS

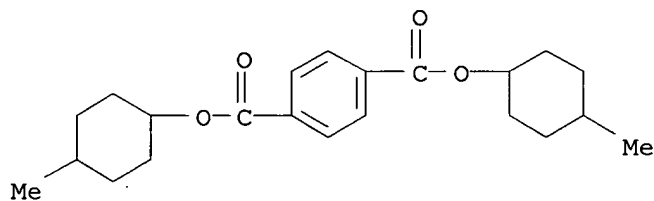
CN Cyclohexanecarboxylic acid, 4-methyl-, 1,4-phenylene ester (9CI) (CA INDEX NAME)



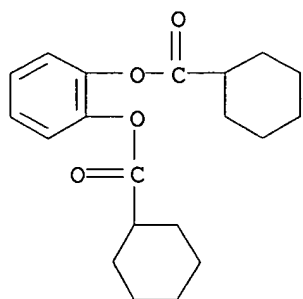
RN 70443-67-3 HCAPLUS
 CN 1,2,4,5-Benzenetetracarboxylic acid, tetracyclohexyl ester (9CI) (CA INDEX NAME)



RN 102957-93-7 HCAPLUS
 CN 1,4-Benzenedicarboxylic acid, bis(4-methylcyclohexyl) ester (9CI) (CA INDEX NAME)

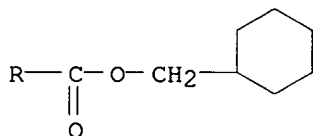
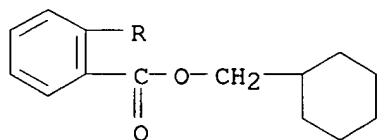


RN 113203-40-0 HCAPLUS
 CN Cyclohexanecarboxylic acid, 1,2-phenylene ester (9CI) (CA INDEX NAME)



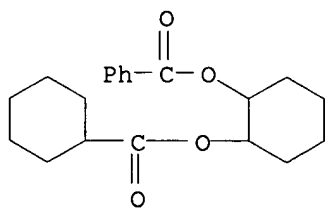
RN 129840-58-0 HCAPLUS

CN 1,2-Benzenedicarboxylic acid, bis(cyclohexylmethyl) ester (9CI) (CA INDEX NAME)



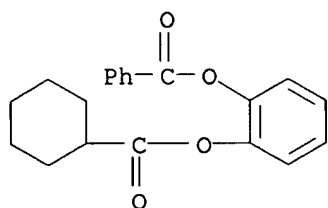
RN 474264-64-7 HCAPLUS

CN Cyclohexanecarboxylic acid, 2-(benzoyloxy)cyclohexyl ester (9CI) (CA INDEX NAME)

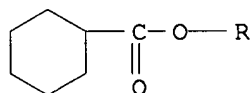
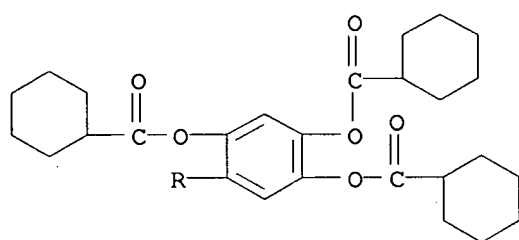


RN 474264-65-8 HCAPLUS

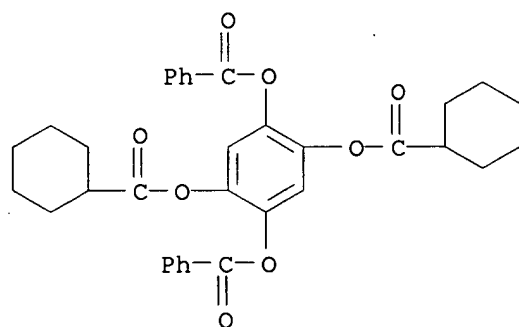
CN Cyclohexanecarboxylic acid, 2-(benzoyloxy)phenyl ester (9CI) (CA INDEX NAME)



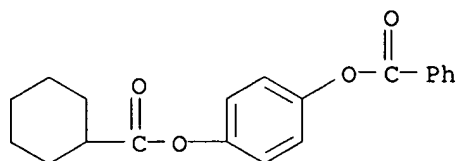
RN 474264-66-9 HCAPLUS
 CN Cyclohexanecarboxylic acid, 1,2,4,5-benzenetetrayl ester (9CI) (CA INDEX NAME)



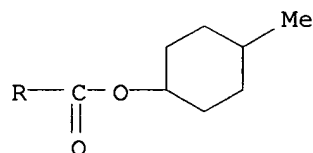
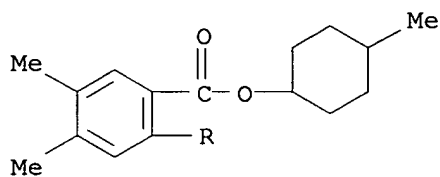
RN 474264-67-0 HCAPLUS
 CN Cyclohexanecarboxylic acid, 2,5-bis(benzoyloxy)-1,4-phenylene ester (9CI) (CA INDEX NAME)



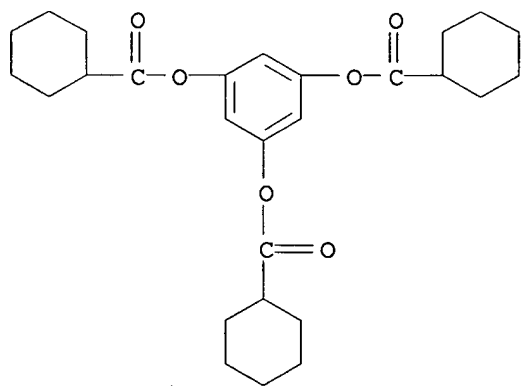
RN 474264-68-1 HCAPLUS
 CN Cyclohexanecarboxylic acid, 4-(benzoyloxy)phenyl ester (9CI) (CA INDEX NAME)



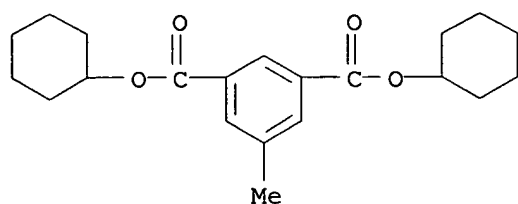
RN 474264-69-2 HCAPLUS
 CN 1,2-Benzenedicarboxylic acid, 4,5-dimethyl-, bis(4-methylcyclohexyl) ester
 (9CI) (CA INDEX NAME)



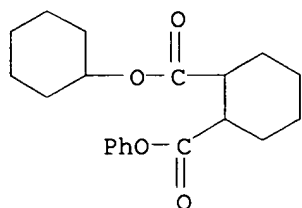
RN 474264-70-5 HCAPLUS
 CN Cyclohexanecarboxylic acid, 1,3,5-benzenetriyl ester (9CI) (CA INDEX
 NAME)



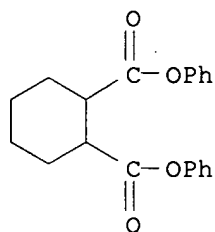
RN 474264-71-6 HCAPLUS
 CN 1,3-Benzenedicarboxylic acid, 5-methyl-, dicyclohexyl ester (9CI) (CA
 INDEX NAME)



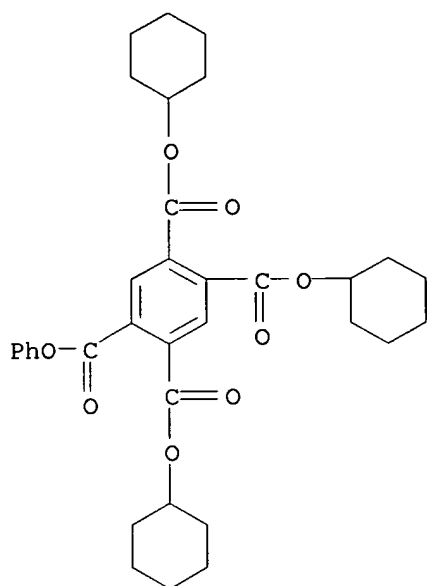
RN 474264-72-7 HCAPLUS
 CN 1,2-Cyclohexanedicarboxylic acid, cyclohexyl phenyl ester (9CI) (CA INDEX NAME)



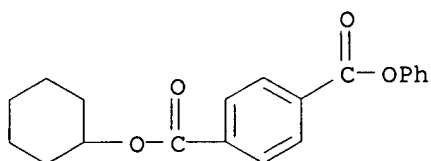
RN 474264-73-8 HCAPLUS
 CN 1,2-Cyclohexanedicarboxylic acid, diphenyl ester (9CI) (CA INDEX NAME)



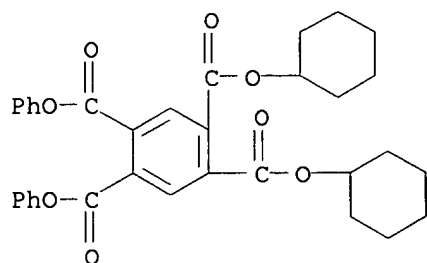
RN 474264-74-9 HCAPLUS
 CN 1,2,4,5-Benzenetetracarboxylic acid, tricyclohexyl phenyl ester (9CI) (CA INDEX NAME)



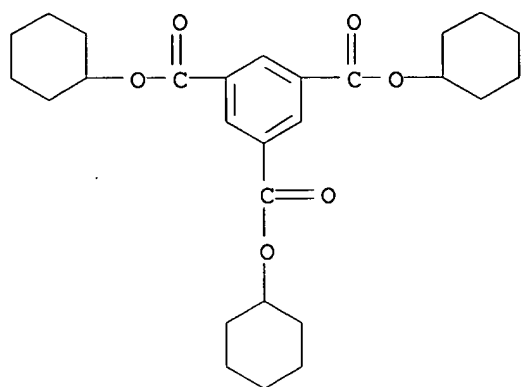
RN 474264-75-0 HCAPLUS
 CN 1,4-Benzenedicarboxylic acid, cyclohexyl phenyl ester (9CI) (CA INDEX NAME)



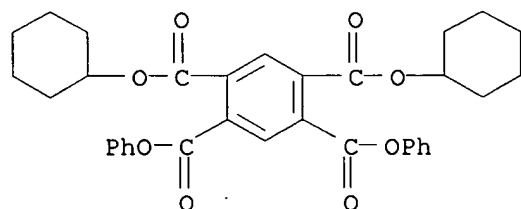
RN 474264-76-1 HCAPLUS
 CN 1,2,4,5-Benzenetetracarboxylic acid, 1,2-dicyclohexyl 4,5-diphenyl ester (9CI) (CA INDEX NAME),



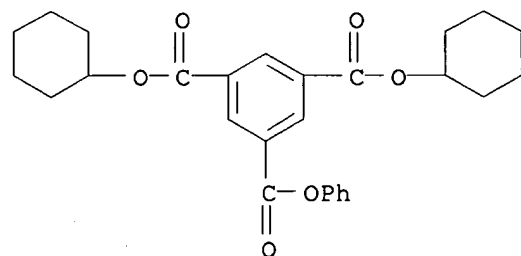
RN 474264-77-2 HCAPLUS
 CN 1,3,5-Benzenetricarboxylic acid, tricyclohexyl ester (9CI) (CA INDEX NAME)



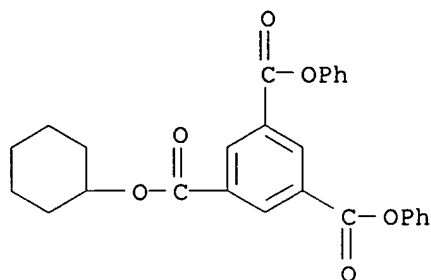
RN 474264-78-3 HCAPLUS
 CN 1,2,4,5-Benzenetetracarboxylic acid, 1,5-dicyclohexyl 2,4-diphenyl ester
 (9CI) (CA INDEX NAME)



RN 474264-79-4 HCAPLUS
 CN 1,3,5-Benzenetricarboxylic acid, dicyclohexyl phenyl ester (9CI) (CA
 INDEX NAME)



RN 474264-80-7 HCAPLUS
 CN 1,3,5-Benzenetricarboxylic acid, cyclohexyl diphenyl ester (9CI) (CA
 INDEX NAME)



L39 ANSWER 10 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2002:768205 HCAPLUS
 DN 137:303403
 TI Retardation control agents for **cellulose** ester **films**
 for phase contrast panels
 IN Takeuchi, Hiroshi; Nishikawa, Naoyuki
 PA Fuji Photo Film Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 18 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM G02B005-30
 ICS B29C055-04; C08J005-18; C08K005-00; C08L001-10; G02F001-1336;
 B29K001-00; B29L007-00; B29L011-00
 CC 76-14 (Electric Phenomena)
 Section cross-reference(s): 38, 43

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002296421	A2	20021009	JP 2001-101810	20010330
PRAI	JP 2001-101810		20010330		

AB The agents are used to enhance the increase of refractive index in the direction which is in a right angle to the stretch direction of a monoaxially stretched **cellulose** ester **film**, and are of QmLMn compds. (Q = alignment providing groups; M = refractive index providing groups; L = direct bond or linking groups; m, n .gtoreq.1). By using the agents, high refractive index value can be reasonably attained without the needs for high **film** stretching. Thus, casting a mixt. of **cellulose** acetate (av. acetylation degree 60.9%) 120, 9,9-bis(3'-ethyl-4-octoxyphenyl)fluorene (control agent) 2.4, tri-Ph phosphate 9.36, biphenyl di-Ph phosphate 4.68, CH2Cl2 718 and MeOH 62.4 parts on a glass surface, drying at room temp. for 1 min and at 45.degree. for 5 min, detaching the resulting **film**, heating at 100.degree. for 30 min and at 130.degree. for 20 min, cutting into dimension, stretching the **film** 1.33:1 in its casting direction at 130.degree. and cooling gave a **film** with thickness 102 .mu.m, and retardation values (Re) 66.2, 30.3 and 18.2 nm at wavelength of 450m 550 and 590 nm, resp.

ST **cellulose** acetate **film** phase contrast panel
 retardation control agent; fluorene compd retardation control agent phase contrast panel

IT Refractive index
 (enhancers; for manuf. of **cellulose** ester **films** for phase contrast panels)

IT **Liquid crystal** displays
Polarizers
(retardation control agents for **cellulose** ester **films**
for phase contrast panels of LCD devices)

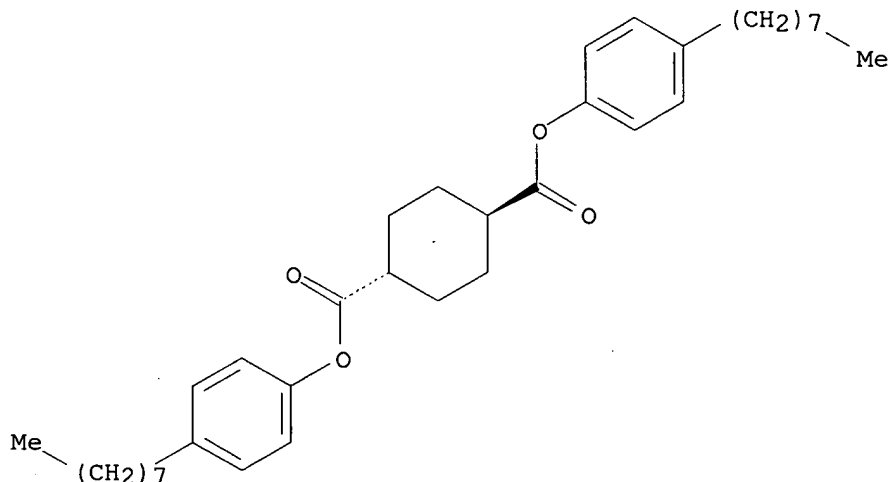
IT 9004-35-7, **Cellulose** acetate
RL: TEM (Technical or engineered material use); USES (Uses)
(**film**; retardation control agents for **cellulose**
ester **films** for phase contrast panels of LCD devices)

IT **83982-12-1**, 1,4-trans-Cyclohexanedicarboxylic acid
di(p-octylphenyl) ester 468721-13-3
RL: **MOA (Modifier or additive use)**; USES (Uses)
(retardation control agents; for manuf. of **cellulose** ester
films for phase contrast panels)

IT **83982-12-1**, 1,4-trans-Cyclohexanedicarboxylic acid
di(p-octylphenyl) ester
RL: **MOA (Modifier or additive use)**; USES (Uses)
(retardation control agents; for manuf. of **cellulose** ester
films for phase contrast panels)

RN 83982-12-1 HCAPLUS
CN 1,4-Cyclohexanedicarboxylic acid, bis(4-octylphenyl) ester, trans- (9CI)
(CA INDEX NAME)

Relative stereochemistry.



L39 ANSWER 11 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2002:707532 HCAPLUS
DN 137:239835
TI Optical retarder, circular polarizer, and reflection-type liquid crystal
display
IN Kawanishi, Hiroyuki; Sata, Hiroaki
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 19 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G02B005-30
ICS C08J005-18; C08L001-08
CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other

Reprographic Processes)

Section cross-reference(s): 38, 73

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002267847	A2	20020918	JP 2001-72392	20010314
	WO 2002073252	A1	20020919	WO 2002-JP2411	20020314
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
PRAI	JP 2001-72391	A	20010314		
	JP 2001-72392	A	20010314		
	JP 2001-249273	A	20010820		

AB The retarder as a polymer **film** contains rodlike compds. having max. UV absorption of their soln. at wavelength .ltoreq.250 nm and satisfies (1) retardation at wavelength 450 nm (Re450) 60-135 nm; retardation at 590 nm (Re590) 100-170 nm; and Re590 - Re450 .gtoreq.2 nm or (2) Re450 120-270 nm; Re590 200-340 nm; and Re590 - Re450 .gtoreq.2 nm. The circular polarizer as a laminate of the above retarder satisfying (1) and a polarizing **film** to form the angle between the slow axis in the retarder and the polarizing axis of the polarizing **film** 45.degree.. The display has a liq. crystal cell, the above circular polarizer, and a reflector so that the polymer **film** side is placed at the liq. crystal cell side. The retarder has good durability and introduces .lambda./4 or .lambda./2 phase difference in wide wavelength region.

ST optical retarder circular polarizer liq crystal display; polymer **film** retarder rodlike compd retardation controller

IT Polarizers

(circular; polymer **film** optical retarder and its laminate of circular polarizer for reflection-type liq. crystal display)

IT Liquid crystal displays

(polymer **film** optical retarder and its laminate of circular polarizer for reflection-type liq. crystal display)

IT Optical instruments

(retarders; polymer **film** optical retarder and its laminate of circular polarizer for reflection-type liq. crystal display)

IT 9002-89-5, Polyvinyl alcohol

RL: TEM (Technical or engineered material use); USES (Uses)

(polarizing **film**; polymer **film** optical retarder and its laminate of circular polarizer for reflection-type liq. crystal display)

IT 9004-35-7, **Cellulose** acetate 9012-09-3, **Cellulose** triacetate

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(polymer **film** optical retarder and its laminate of circular polarizer for reflection-type liq. crystal display)

IT 57113-57-2 83982-11-0

RL: MOA (Modifier or additive use); PRP (Properties); TEM

(Technical or engineered material use); USES (Uses)

(retardation controller; polymer **film** optical retarder and

its laminate of circular polarizer for reflection-type liq. crystal display)

IT 57113-57-2 83982-11-0

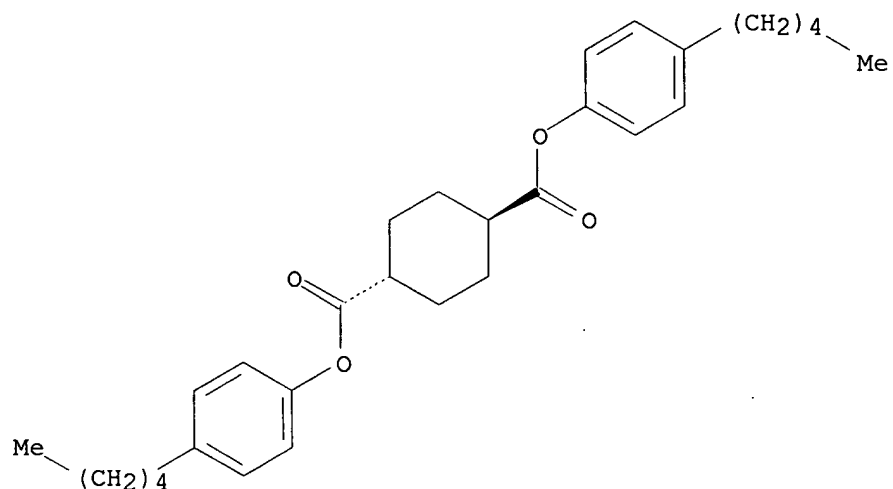
RL: MOA (Modifier or additive use); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(retardation controller; polymer film optical retarder and its laminate of circular polarizer for reflection-type liq. crystal display)

RN 57113-57-2 HCAPLUS

CN 1,4-Cyclohexanedicarboxylic acid, bis(4-pentylphenyl) ester, trans- (9CI)
(CA INDEX NAME)

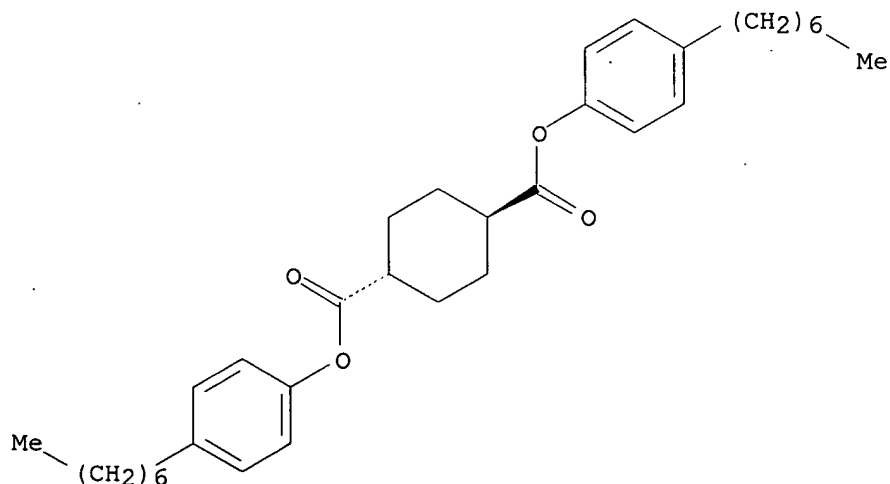
Relative stereochemistry.



RN 83982-11-0 HCAPLUS

CN 1,4-Cyclohexanedicarboxylic acid, bis(4-heptylphenyl) ester, trans- (9CI)
(CA INDEX NAME)

Relative stereochemistry.



L39 ANSWER 12 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1997:63531 HCAPLUS

DN 126:105614

TI Cellulose esters formulated with solid plasticizers and impact modifiers

AU Anon.

CS UK

SO Research Disclosure (1997), 393, 41 (No. 39340)

CODEN: RSDSBB; ISSN: 0374-4353

PB Kenneth Mason Publications Ltd.

DT Journal; Patent

LA English

CC 43-3 (Cellulose, Lignin, Paper, and Other Wood Products)

Section cross-reference(s): 37

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	RD 393040		19970110	
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PRAI	RD 1997-393040	19970110		
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AB Cellulose acetate butyrate and cellulose acetate propionate (I) were formulated with solid plasticizers and impact modifiers in order to achieve superior combinations of stiffness and impact strength. The exptl. work could not be extended to cellulose acetate because of its incompatibility with solid plasticizers. The solid plasticizers evaluated included: glycerol tribenzoate, sucrose benzoate, neopentyl glycol dibenzoate, 1,4-cyclohexane dimethanol dibenzoate, o,p-toluenesulfonamide, and dicyclohexyl phthalate. The useful plasticizers had 2 general characteristics, i.e., (1) compatibility with the cellulose ester from 5 to 25 wt.% and (2) solids at room temp. The 2 impact modifiers were core-shell impact modifiers having the trade names Paraloid KM-323-B and Paraloid KM-334. They were tested at levels .ltoreq.5 wt.%, but they could probably be used at levels .ltoreq.10 wt.%. The flexural moduli ranged from 1800 to 2400 MPa, as compared to 1300 to 1800 MPa for I formulated with liq. plasticizer. The formulation of I and solid plasticizer contg. the impact modifiers had notched Izod impact strength at 23.degree. of 140 to 200 J/M, whereas without impact modifiers, it was 50 to 80 J/M.

ST cellulose ester solid plasticizer impact modifier; acetate butyrate propionate cellulose impact plasticization

IT Acrylic rubber

RL: MOA (Modifier or additive use); USES (Uses)

(Bu acrylate-Me methacrylate, graft, Paraloid KM 323B; cellulose esters formulated with solid plasticizers and impact modifiers)

IT Acrylic rubber

RL: MOA (Modifier or additive use); USES (Uses)

(Paraloid KM-334; cellulose esters formulated with solid plasticizers and impact modifiers)

IT Flexibility

Impact strength

(cellulose esters formulated with solid plasticizers and impact modifiers)

IT Plasticizers

(solid; cellulose esters formulated with solid plasticizers and impact modifiers)

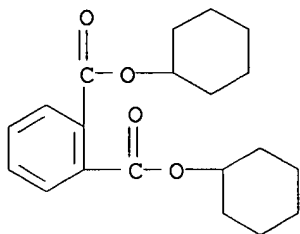
IT 84-61-7, Dicyclohexyl phthalate 614-33-5, Glycerol tribenzoate

4196-89-8, Neopentyl glycol dibenzoate 8013-74-9 12738-64-6, Sucrose benzoate 35541-81-2, 1,4-Cyclohexane dimethanol dibenzoate

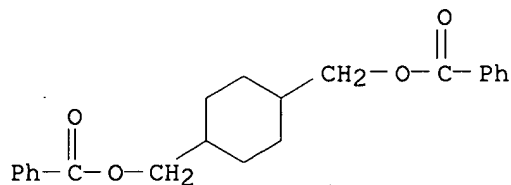
RL: MOA (Modifier or additive use); USES (Uses)

(cellulose esters formulated with solid plasticizers and

impact modifiers)
 IT 9004-34-6D, Cellulose, esters, properties 9004-36-8, Cellulose acetate butyrate 9004-39-1, Cellulose acetate propionate
 RL: PRP (Properties)
 (cellulose esters formulated with solid plasticizers and impact modifiers)
 IT 84-61-7, Dicyclohexyl phthalate 35541-81-2, 1,4-Cyclohexane dimethanol dibenzoate
 RL: MOA (Modifier or additive use); USES (Uses)
 (cellulose esters formulated with solid plasticizers and impact modifiers)
 RN 84-61-7 HCAPLUS
 CN 1,2-Benzenedicarboxylic acid, dicyclohexyl ester (9CI) (CA INDEX NAME)



RN 35541-81-2 HCAPLUS
 CN 1,4-Cyclohexanedimethanol, dibenzoate (7CI, 9CI) (CA INDEX NAME)



L39 ANSWER 13 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 1996:689487 HCAPLUS
 DN 125:320571
 TI Controlled-delivery compositions for aquatic pesticides
 IN Levy, Richard
 PA Lee County Mosquito Control District, USA
 SO PCT Int. Appl., 84 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 IC ICM A01N025-28
 CC 5-4 (Agrochemical Bioregulators)
 FAN.CNT 3

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9628973	A1	19960926	WO 1996-US3499	19960315
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE,				

SG, SI
 RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR,
 IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML

US 5698210	A	19971216	US 1995-434313	19950502
AU 9653640	A1	19961008	AU 1996-53640	19960315
AU 689716	B2	19980402		
EP 814659	A1	19980107	EP 1996-910449	19960315

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, FI

JP 11502229	T2	19990223	JP 1996-528500	19960315
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PRAI US 1995-406344 A 19950317
 US 1995-409301 A 19950324
 US 1995-434313 A 19950502
 WO 1996-US3499 W 19960315

AB Controlled released compns. are disclosed, comprising complexes for treating aquatic organism(s) in a column of water. The complexes comprise bioactive agent(s), a carrier and **coating** component(s) for regulating the controlled release rate and release profile of the bioactive agent in water. One bioactive agent and one joint-function component can serve as both a carrier and **coating** to regulate the controlled release rate and release profile of the bioactive agent in water, with or without optional binder components and/or addnl. formulation materials. The components are selected to sink or float so that the complexes will permeate and/or remain in any planar or volumetric segment of a water column for a period of time that is sufficient to treat a population of aquatic organisms. Methods for treating a column of water are also disclosed which comprise delivering the compns. to a column of water or to a dry preflood area (pretreatment) that will develop in a column of water or a flood area. The compn. and process can also be used to treat terrestrial organisms. Suitable bioactive agents are *Bacillus thuringiensis israelensis*, *B. sphaericus*, *Lagenidium giganteum*, methoprene, diflubenzuron, pyriproxyfen, temephos, chlorpyrifos, pirimiphos-Me, .lambda.-cyhalothrin, etc. The carriers comprise silica, **cellulose** fiber, metal oxides, etc. The **coatings** with a sp.gr. >1 comprise tri-Et citrate, acetyltriethyl citrate, tri-Bu citrate, acetyltributyl citrate, acetyltriethyl citrate, trihexyl trimellitate, dicyclohexyl phthalate, di-Et phthalate, etc. **Coatings** with sp. gr. <1 comprise butyryl trihexyl citrate, monostearyl citrate, stearyl alc., myristyl alc., octadecanoic acid, glyceryl stearate and waxes.

ST controlled delivery aquatic pesticide

IT Solvents
 (arom.; controlled-delivery compns. for aquatic pesticides)

IT Waxes and Waxy substances
 RL: MOA (Modifier or additive use); USES (Uses)
 (**coating** for controlled-delivery compns. of aquatic pesticides)

IT *Bacillus sphaericus*
Bacillus thuringiensis israelensis
Lagenidium giganteum
 (controlled-delivery compns. for aquatic pesticides)

IT Lecithins
 Pyrethrins and Pyrethroids
 RL: AGR (Agricultural use); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (controlled-delivery compns. for aquatic pesticides)

IT Paper
 (water-sol. **films**; **coating** for controlled-delivery compns. of aquatic pesticides)

IT Herbicides
(aquatic, controlled-delivery compns. of aquatic pesticides)

IT Agrochemical formulations
(controlled-release, controlled-delivery compns. of aquatic pesticides)

IT Insecticides
(larvicidal, mosquitocides; controlled-delivery compns. of aquatic pesticides)

IT Petroleum products
(oils, controlled-delivery compns. for aquatic pesticides)

IT 57-11-4, Octadecanoic acid, uses 77-89-4, Acetyltriethyl citrate 77-90-7, ACetyl tributyl citrate 77-93-0, Triethyl citrate 77-94-1, Tributyl citrate **84-61-7**, Dicyclohexyl phthalate 84-66-2, Diethyl phthalate 85-70-1, Butyl phthalyl butyl glycolate 112-72-1, Myristyl alcohol 112-92-5, Stearyl alcohol 1323-66-6, Monostearyl citrate 1459-93-4, Dimethyl isophthalate 1528-49-0, Trihexyltrimellitate 11099-07-3, Glyceryl stearate 24817-92-3 82469-79-2
RL: **MOA (Modifier or additive use); USES (Uses)**
(**coating** for controlled-delivery compns. of aquatic pesticides)

IT 85-00-7, Diquat 94-75-7, 2,4-D, biological studies 107-02-8, Acrolein, biological studies 122-34-9, Simazine 145-73-3, Endothall 1071-83-6, Glyphosate 1194-65-6, Dichlobenil 2921-88-2, Chlorpyrifos 3383-96-8, Temephos 29232-93-7, Pirimiphos-methyl 35367-38-5, Diflubenzuron 40596-69-8, Methoprene 52292-17-8, Ethoxylated isostearyl alcohol 59756-60-4, Fluridone 91465-08-6 95737-68-1, Pyriproxyfen
RL: AGR (Agricultural use); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(controlled-delivery compns. for aquatic pesticides)

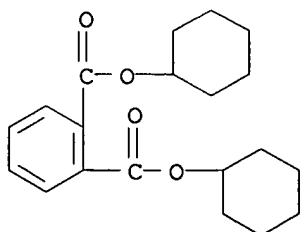
IT 9002-89-5, PVA 9004-65-3, **Hydroxypropylmethylcellulose** 9004-67-5, **Methylcellulose** 25322-68-3, Polyethylene oxide
RL: MOA (Modifier or additive use); USES (Uses)
(water-sol. **films; coating** for controlled-delivery compns. of aquatic pesticides)

IT 75-99-0, Dalapon 7440-50-8D, Copper, compds.
RL: AGR (Agricultural use); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(water-sol.; controlled-delivery compns. for aquatic pesticides)

IT **84-61-7**, Dicyclohexyl phthalate
RL: **MOA (Modifier or additive use); USES (Uses)**
(**coating** for controlled-delivery compns. of aquatic pesticides)

RN 84-61-7 HCAPLUS

CN 1,2-Benzenedicarboxylic acid, dicyclohexyl ester (9CI) (CA INDEX NAME)

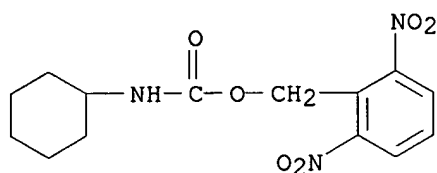


L39 ANSWER 14 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 1996:622743 HCAPLUS
 DN 125:261368
 TI Laminated pressure-sensitive recording sheets
 IN Komatsu, Takaaki; Wakaura, Sukeji; Iguchi, Juji
 PA Mitsubishi Paper Mills Ltd, Japan
 SO Jpn. Kokai Tokkyo Koho, 10 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM B41M005-124
 ICS B32B007-06; B32B027-10; B41M005-165
 CC 74-11 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)
 Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08183245	A2	19960716	JP 1994-328901	19941228
PRAI	JP 1994-328901		19941228		
AB	The title sheets contain, on a support, a photosensitive layer, in which a color former and a color developer, .gtoreq.1 of which is microencapsulated, are laminated sep. or mixed and coated, and an opaque covering sheet which are integrated via an ethylene polymer-laminated layer contg. an antioxidant. The layer and the covering sheet may be integrated with .gtoreq.2 thermoplastic resin-laminated layers in which the layer contacted with the sheet contains the antioxidant. The recording sheets show uniform, stable peeling properties.				
ST	pressure sensitive copying paper resin laminate; ethylene polymer lamination copying paper; antioxidant				
IT	Copying paper				
	(laminated pressure-sensitive recording sheets contg. antioxidant)				
IT	128-37-0, 2,6-Di-tert-butyl-p-cresol, uses 26638-03-9D, Hydroxyanisole, butylated 133795-09-2 182155-17-5				
	RL: DEV (Device component use); MOA (Modifier or additive use);				
	USES (Uses)				
	(antioxidant; laminated pressure-sensitive recording sheets contg. antioxidant)				
IT	9002-89-5, Poly(vinyl alcohol) 9004-62-0, Hydroxyethyl cellulose 142583-62-8, Polymaron 1308				
	RL: DEV (Device component use); USES (Uses)				
	(coating; laminated pressure-sensitive recording sheets contg. antioxidant)				
IT	9002-88-4, Polyethylene 9003-07-0, Polypropylene 9010-79-1, Ethylene-propylene copolymer				
	RL: DEV (Device component use); USES (Uses)				
	(opaque layer; laminated pressure-sensitive recording sheets contg. antioxidant)				
IT	169799-85-3, Carbomul SS-362				
	RL: DEV (Device component use); USES (Uses)				
	(sizing agent; laminated pressure-sensitive recording sheets contg. antioxidant)				
IT	133795-09-2				
	RL: DEV (Device component use); MOA (Modifier or additive use);				
	USES (Uses)				
	(antioxidant; laminated pressure-sensitive recording sheets contg. antioxidant)				
RN	133795-09-2 HCAPLUS				

CN Carbamic acid, cyclohexyl-, (2,6-dinitrophenyl)methyl ester (9CI) (CA INDEX NAME)



L39 ANSWER 15 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1995:210360 HCAPLUS

DN 122:83180

TI Self-bonding of dust-repellent vinyl chloride resin **films**

IN Ikeda, Mineo

PA Achilles Corp, Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B29C065-50

ICA C08L027-06

CC 38-2 (Plastics Fabrication and Uses)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 06170952	A2	19940621	JP 1992-352228	19921210
PRAI	JP 1992-352228		19921210		

AB One end of a title **film** (e.g., greenhouse cover) is folded on the untreated side forming a long cylindrical form which is then cut longitudinally forming an extended **film** flap on which another **film** is fused.

ST vinyl chloride resin **film** greenhouse; bonding vinyl chloride resin **film**; dust repellent vinyl chloride **film**

IT Polyoxyalkylenes, uses

RL: MOA (Modifier or additive use); USES (Uses)

(antistatic agents; self-bonding of dust-repellent vinyl chloride resin **films** for greenhouse)

IT Greenhouses

(bonding of vinyl cover **films** for)

IT Acrylic polymers, uses

Epoxy resins, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(**coatings**; self-bonding of dust-repellent vinyl chloride resin **films** for greenhouse)

IT Slate

(fillers; self-bonding of dust-repellent vinyl chloride resin **films** for greenhouse)

IT Asbestos

Carbon fibers, uses

Clays, uses

Glass fibers, uses

Kieselguhr

Mica-group minerals, uses

Perlite

Shirasu (soil)
RL: MOA (Modifier or additive use); USES (Uses)
(fillers; self-bonding of dust-repellent vinyl chloride resin
films for greenhouse)

IT Surfactants
(fluorine-contg.; self-bonding of dust-repellent vinyl chloride resin
films for greenhouse)

IT Amides, uses
Fatty acids, uses
Paraffin oils
RL: MOA (Modifier or additive use); USES (Uses)
(lubricants; self-bonding of dust-repellent vinyl chloride resin
films for greenhouse)

IT Esters, uses
RL: MOA (Modifier or additive use); USES (Uses)
(plasticizers; self-bonding of dust-repellent vinyl chloride resin
films for greenhouse)

IT Adhesion
(preventers; self-bonding of dust-repellent vinyl chloride resin
films for greenhouse)

IT Antifogging agents
Antioxidants
Antistatic agents
Coating materials
Fouling control agents
Fungicides and Fungistats
Light stabilizers
Lubricants
Plasticizers
(self-bonding of dust-repellent vinyl chloride resin **films**
for greenhouse)

IT Epoxy resins, uses
Urethane polymers, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(acrylic, **coatings**; self-bonding of dust-repellent vinyl
chloride resin **films** for greenhouse)

IT Glass, oxide
RL: MOA (Modifier or additive use); USES (Uses)
(beads, fillers; self-bonding of dust-repellent vinyl chloride resin
films for greenhouse)

IT Alkanes, uses
RL: MOA (Modifier or additive use); USES (Uses)
(chloro, plasticizers; self-bonding of dust-repellent vinyl chloride
resin **films** for greenhouse)

IT Linseed oil
Soybean oil
RL: MOA (Modifier or additive use); USES (Uses)
(epoxidized, plasticizers; self-bonding of dust-repellent vinyl
chloride resin **films** for greenhouse)

IT Ashes (residues)
(fly, fillers; self-bonding of dust-repellent vinyl chloride resin
films for greenhouse)

IT **Coating** materials
(photocurable, self-bonding of dust-repellent vinyl chloride resin
films for greenhouse)

IT Ethers, uses
RL: PEP (Physical, engineering or chemical process); POF (Polymer in
formulation); PROC (Process); USES (Uses)

(vinyl, vinyl chloride copolymers; self-bonding of dust-repellent vinyl chloride resin **films** for greenhouse)

IT **Coating materials**

(water-thinned, self-bonding of dust-repellent vinyl chloride resin **films** for greenhouse)

IT 85-19-8, 2-Hydroxy-5-chlorobenzophenone 131-53-3, 2,2'-Dihydroxy-4-methoxybenzophenone 131-54-4, 2,2'-Dihydroxy-4,4'-dimethoxybenzophenone 131-55-5, 2,2',4,4'-Tetrahydroxybenzophenone 131-56-6, 2,4-Dihydroxybenzophenone 131-57-7, 2-Hydroxy-4-methoxybenzophenone 1843-05-6, 2-Hydroxy-4-octoxybenzophenone 2440-22-4, 2-(2-Hydroxy-5-methylphenyl)benzotriazole 2669-19-4D, esters 3147-76-0, 2-(2-Hydroxy-5-tert-butylphenyl)benzotriazole 3147-77-1 3287-17-0 3864-99-1, 2-(3,5-Di-tert-butyl-2-hydroxyphenyl)-5-chlorobenzotriazole 3896-11-5, 2-(3-tert-Butyl-2-hydroxy-5-methylphenyl)-5-chlorobenzotriazole 4065-45-6, 2-Hydroxy-4-methoxy-5-sulfobenzophenone 4756-45-0 4860-06-4, 2-(5-Cyclohexyl-2-hydroxyphenyl)benzotriazole 4860-07-5 4860-09-7 5188-31-8 10096-91-0, 2-(2-Hydroxyphenyl)benzotriazole 19120-61-7 25729-32-2, 2-(2-Hydroxy-5-methoxyphenyl)benzotriazole 34050-94-7 37887-34-6 68716-15-4 69698-20-0, 2-(2-Acetoxy-5-methylphenyl)benzotriazole 69825-09-8 85279-79-4, Tris(2,2,6,6-tetramethyl-4-piperidyl) triazine-2,4,6-tricarboxylate 91268-31-4 92852-74-9 93312-05-1 94312-14-8 94854-22-5 97027-78-6 159236-55-2 159236-56-3 159236-57-4 159236-58-5

RL: MOA (Modifier or additive use); USES (Uses)

(UV absorbers; self-bonding of dust-repellent vinyl chloride resin **films** for greenhouse)

IT 502-52-3, Diglycerin palmitate 9005-67-8, Polyoxyethylene sorbitol monostearate 11099-07-3, Glycerol stearate 11140-06-0, Glycerol palmitate 26266-57-9, Sorbitan palmitate 52503-25-0, Polyoxypropylene sorbitan monostearate 54242-13-6, Sorbitol stearate 56451-84-4, Sorbitan stearate 61288-30-0, Sorbitan behenate 89636-75-9 112143-71-2, Diglycerin stearate 159704-70-8 159704-85-5 159704-86-6

RL: MOA (Modifier or additive use); USES (Uses)

(antifogging agents; self-bonding of dust-repellent vinyl chloride resin **films** for greenhouse)

IT 58-36-6, 10,10'-Oxybisphenoxyarsine 148-79-8, 2-(4-Thiazolyl)benzimidazole 719-96-0, N-(Fluorodichloromethylthio)phthalimide 1897-45-6, 2,4,5,6-Tetrachloroisophthalonitrile 2598-86-9, N-Trichloromethylthiocyclohexane-1,2-dicarboximide

RL: MOA (Modifier or additive use); USES (Uses)

(antimildew agents; self-bonding of dust-repellent vinyl chloride resin **films** for greenhouse)

IT 1085-98-9

RL: MOA (Modifier or additive use); USES (Uses)

(antimildew and antifouling agents; self-binding of dust-repellent vinyl chloride resin **films** for greenhouse)

IT 59-50-7, 4-Chloro-3-methylphenol 99-96-7D, p-Hydroxybenzoic acid, esters 2939-94-8, N-(Tetrachloroethylthio)phthalimide 3090-36-6, Tributyltin laurate 13108-52-6, 2,3,5,6-Tetrachloro-4-methylsulfonylpyridine 30007-47-7, 5-Bromo-5-nitro-1,3-dioxane

RL: MOA (Modifier or additive use); USES (Uses)

(antimildew and antifouling agents; self-bonding of dust-repellent vinyl chloride resin **films** for greenhouse)

IT 50-70-4, Sorbitol, uses 56-81-5, Glycerin, uses 69-65-8, Mannitol 115-77-5, Pentaerythritol, uses 12441-09-7, Sorbitan 34828-64-3, Mannitan

RL: MOA (Modifier or additive use); USES (Uses)

(antistatic agents; self-bonding of dust-repellent vinyl chloride resin
films for greenhouse)

IT 9004-34-6, **Cellulose**, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (coatings; self-bonding of dust-repellent vinyl chloride
 resin **films** for greenhouse)

IT 471-34-1, Calcium carbonate, uses 546-93-0, Magnesium carbonate
 1309-42-8, Magnesium hydroxide 1344-28-1, Alumina, uses 7631-86-9,
 Silica, uses 7727-43-7, Barium sulfate 7778-18-9, Calcium sulfate
 10043-01-3, Aluminum sulfate 14807-96-6, Talc, uses 21645-51-2,
 Aluminum hydroxide, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (fillers; self-bonding of dust-repellent vinyl chloride resin
films for greenhouse)

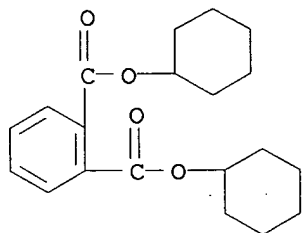
IT 57-10-3, Palmitic acid, uses 57-11-4, Stearic acid, uses 109-23-9,
 Methylenebisstearamide 110-30-5, Ethylenebisstearamide 110-31-6,
 Ethylenebisoleamide 111-06-8, Butyl palmitate 123-95-5, Butyl stearate
 124-26-5, Stearamide 544-63-8, Myristic acid, uses 629-54-9,
 Palmitamide 7003-56-7, Ethylenebislauroamide 9002-88-4, Polyethylene
 30399-84-9, IsoStearic acid
 RL: MOA (Modifier or additive use); USES (Uses)
 (lubricants; self-bonding of dust-repellent vinyl chloride resin
films for greenhouse)

IT 78-40-0, Triethyl phosphate **84-61-7**, Dicyclohexyl phthalate
 84-69-5, Diisobutyl phthalate 84-72-0, Ethyl phthalyl ethyl glycolate
 84-74-2, Dibutyl phthalate 84-76-4, Dinonyl phthalate 85-68-7, Benzyl
 butyl phthalate 85-71-2, Methyl phthalyl ethyl glycolate 89-04-3,
 Trioctyl trimellitate 102-76-1, Triacetin 103-23-1, Dioctyl adipate
 109-43-3, Dibutyl sebacate 110-15-6D, Succinic acid, alkyl esters
 115-86-6, Triphenyl phosphate 115-96-8, Tris(chloroethyl) phosphate
 117-81-7, DOP 117-82-8, Dimethylglycol phthalate 117-84-0, Di-n-octyl
 phthalate 126-73-8, Tributyl phosphate, uses 140-03-4, Methyl
 acetylricinoleate 1330-78-5, Tricresyl phosphate 1806-54-8, Trioctyl
 phosphate 2064-80-4, Dioctyl azelate 2432-87-3, Dioctyl sebacate
 2432-90-8, Didodecyl phthalate 7393-26-2, Butyl phthalyl ethyl glycolate
 25101-03-5, Poly(propylene adipate) 25155-23-1, Trixylenyl phosphate
 26444-49-5, Cresyl diphenyl phosphate 26444-51-9 26446-73-1, Dicresyl
 phenyl phosphate 26761-40-0, Diisodecyl phthalate 27178-16-1,
 Diisodecyl adipate 27941-08-8, Poly(propylene adipate) 28801-70-9,
 Diisodecyl succinate 29660-68-2 58339-60-9 64800-22-2, Dixylenyl
 phenyl phosphate 101405-03-2
 RL: MOA (Modifier or additive use); USES (Uses)
 (plasticizers; self-bonding of dust-repellent vinyl chloride resin
films for greenhouse)

IT 79-10-7D, Acrylic acid, esters, polymer with vinyl chloride 79-41-4D,
 Methacrylic acid, esters, polymer with vinyl chloride 110-16-7D, Maleic
 acid, esters, polymer with vinyl chloride 9002-86-2, PVC 9003-00-3,
 Acrylonitrile-vinyl chloride copolymer 9003-22-9, Vinyl acetate-vinyl
 chloride copolymer 9011-06-7, Vinyl chloride-vinylidene chloride
 copolymer 25037-78-9, Ethylene-vinyl chloride copolymer 25119-90-8,
 Propylene-vinyl chloride copolymer 26680-86-4, Maleic acid-vinyl
 chloride copolymer 27082-73-1, Methacrylic acid-vinyl chloride copolymer
 77860-41-4, Itaconic acid-vinyl chloride copolymer
 RL: PEP (Physical, engineering or chemical process); POF (Polymer in
 formulation); PROC (Process); USES (Uses)
 (self-bonding of dust-repellent vinyl chloride resin **films**
 for greenhouse)

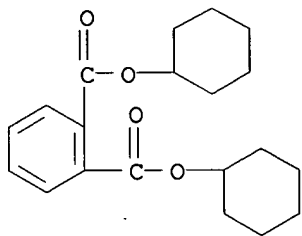
IT 29117-08-6 60030-35-5 159236-59-6 159236-61-0 159236-62-1

159236-63-2 159236-64-3 159602-14-9 159602-15-0 159602-16-1
 RL: MOA (Modifier or additive use); USES (Uses)
 (surfactants; self-bonding of dust-repellent vinyl chloride resin
films for greenhouse)
 IT 84-61-7, Dicyclohexyl phthalate
 RL: MOA (Modifier or additive use); USES (Uses)
 (plasticizers; self-bonding of dust-repellent vinyl chloride resin
films for greenhouse)
 RN 84-61-7 HCAPLUS
 CN 1,2-Benzenedicarboxylic acid, dicyclohexyl ester (9CI) (CA INDEX NAME)



L39 ANSWER 16 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 1991:90838 HCAPLUS
 DN 114:90838
 TI Optical characteristics of lacquer layers on cellulose hydrate substrates
 from IR ellipsometric and internal reflection data
 AU Starovoitov, L. E.; Gusev, S. S.; Stas'kov, N. I.
 CS Inst. Fiz., Mogilev, USSR
 SO Vestsi Akademii Navuk BSSR, Seryya Fizika-Matematychnykh Navuk (1990),
 (5), 72-5
 CODEN: VBSFA5; ISSN: 0002-3574
 DT Journal
 LA Russian
 CC 73-2 (Optical, Electron, and Mass Spectroscopy and Other Related
 Properties)
 AB The layers of polymers deposited onto the cellulose hydrate **films**
 were investigated by the methods of IR ellipsometry and attenuated total
 reflection. Based on the reflection coeffs. in approxn. of the 3-layer
 model, the absorption and refractive indexes of the layers and
films in spectral regions of 10.6 .mu.m have been calcd. and
 discussed.
 ST optical property lacquer **film** cellulose hydrate; IR ellipsometry
 lacquer **film** cellulose hydrate; reflection lacquer **film**
 cellulose hydrate
 IT Optical reflection
 (by lacquer **film** on cellulose hydrate)
 IT Ellipsometry
 (IR, in optical property study of lacquer on cellulose hydrate)
 IT Coating materials
 (lacquers, optical properties of, on cellulose hydrate substrate)
 IT 75-01-4, Vinyl chloride, properties 75-35-4, properties 84-61-7
 , Dicyclohexyl phthalate 84-74-2 9003-49-0, Polybutyl acrylate
 RL: PRP (Properties)
 (optical property of lacquer **film** contg., on
cellulose hydrate)
 IT 11097-73-7, Cellulose hydrate

RL: PRP (Properties)
 (optical property of lacquer **film** on substrate of)
 IT 84-61-7, Dicyclohexyl phthalate
 RL: PRP (Properties)
 (optical property of lacquer **film** contg., on
cellulose hydrate)
 RN 84-61-7 HCAPLUS
 CN 1,2-Benzenedicarboxylic acid, dicyclohexyl ester (9CI) (CA INDEX NAME)

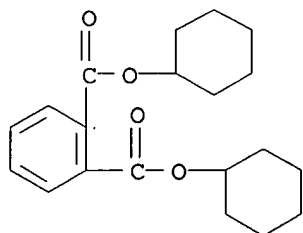


L39 ANSWER 17 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 1990:442187 HCAPLUS
 DN 113:42187
 TI Acrylic polymer-containing lacquers for depositing heat-sealable layers on cellophane **films**
 IN Lebduska, Jan; Dvorak, Adolf; Mandik, Lumir; Rusnak, Vladimir; Benko, Martin; Durca, Milan; Skokan, Jan
 PA Czech.
 SO Czech., 5 pp.
 CODEN: CZXXA9
 DT Patent
 LA Czech
 IC ICM C09D003-80
 CC 38-3 (Plastics Fabrication and Uses)
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CS 263924	B1	19890512	CS 1987-6623	19870914
PRAI	CS 1987-6623		19870914		

AB The title lacquers contain light- and water-resistant copolymers [prepd. from (meth)acrylate esters of C1-16 alkanols or diols 54-99.9, .alpha.,.beta.-unsatd. C3-5 carboxylic or dicarboxylic acids or anhydrides 0.1-8, glycidyl (meth)acrylate .ltoreq.1, and styrene or C1-4-alkylstyrene .ltoreq.50%] 6-25, org. solvents 75-96, **cellulose** nitrate (I; 11.7-12.3% N) 0.3-3.1, plasticizers 0.1-2.2, and additives (wax, filler, etc.) 0.05-2.5 parts. A lacquer contg. 2:45:6:47 acrylic acid-Bu acrylate-2-ethylhexyl acrylate-Me methacrylate copolymer 9.5, 60:29:10:1 EtOAc-PhMe-BuOAc-EtOH mixt. 88.5, I 0.94, dicyclohexyl phthalate 0.9, and additives [60:40 ethylene-vinyl acetate copolymer 26, amorphous silica 13.6, paraffin (softening at 62.degree.) 50.6, and rosin 9.8%] 0.16 part gave layers which were heat-sealable at 80-180.degree./0.1-0.5 MPa.
 ST cellophane **film** heat sealing; adhesive heat sealing cellophane; polyacrylate heat sealing cellophane; **cellulose** nitrate heat sealing; cyclohexyl phthalate plasticizer polyacrylate; glycidyl polymer heat sealing; styrene polymer heat sealing; plasticizer polyacrylate heat sealing; light resistance polyacrylate
 IT Plasticizers

(acrylic polymers contg., for heat-sealable layers on cellophane)
 IT Adhesives
 (acrylic polymers, cellophane **films** contg., heat-sealable)
 IT Cellophane
 (**films**, heat-sealable acrylic polymer layers on)
 IT 9004-70-0, **Cellulose** nitrate
 RL: USES (Uses)
 (acrylic polymers contg., heat-sealable, on cellophane **film**)
 IT 9004-34-6
 RL: USES (Uses)
 (cellophane, **films**, heat-sealable acrylic polymer layers on)
 IT 25987-66-0, Butyl acrylate-methacrylic acid-methyl methacrylate-styrene
 copolymer 68443-31-2 127960-12-7
 RL: USES (Uses)
 (heat-sealable layers contg., for cellophane **film**)
 IT 127960-11-6
 RL: USES (Uses)
 (heat-sealable layers contg., on cellophane **film**)
 IT 42398-14-1
 RL: USES (Uses)
 (heat-sealing layers contg., on cellophane **film**)
 IT **84-61-7**, Dicyclohexyl phthalate 18699-40-6
 RL: **MOA (Modifier or additive use)**; USES (Uses)
 (plasticizers, for heat-sealable acrylic polymers on cellophane)
 IT 84-74-2, Dibutyl phthalate 1330-78-5, Tricresyl phosphate
 RL: **MOA (Modifier or additive use)**; USES (Uses)
 (plasticizers, for heat-sealable acrylic polymers on cellophane
film)
 IT **84-61-7**, Dicyclohexyl phthalate
 RL: **MOA (Modifier or additive use)**; USES (Uses)
 (plasticizers, for heat-sealable acrylic polymers on cellophane)
 RN 84-61-7 HCAPLUS
 CN 1,2-Benzenedicarboxylic acid, dicyclohexyl ester (9CI) (CA INDEX NAME)



L39 ANSWER 18 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 1989:218820 HCAPLUS
 DN 110:218820
 TI Water-resistant sunscreens containing ethylcellulose and alkaline
 dispersants
 IN Palinczar, Victor
 PA USA
 SO Ger. Offen., 15 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 IC ICM A61K007-42

ICS C08L001-28
 ICI C08L001-28, C08K005-10, C08K005-17, C08K005-07, C08K005-06, C08K005-42
 CC 62-4 (Essential Oils and Cosmetics)
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3710292	A1	19881006	DE 1987-3710292	19870328
PRAI	DE 1987-3710292		19870328		
AB	Water-resistant sunscreens contain a UV absorber 1-30, H2O 15-95, an ethylcellulose polymer 0.1-6.0, a surfactant 0.01-12, and an alk. dispersant 0.03-5% by wt. These film-forming formulations are applied to the skin as aq. lotions or creams, with the aid of a polymeric binder. Ethylcellulose dispersions used here are com. available as XD-30543-40, XD-30543-30, and Ethogel, and can be mixed with suitable sunscreen agents. The addn. of water-insol. softening agents furthermore prevents loss of moisture from the skin, gives a smooth, soft feeling on the skin, and prevents tackiness of the formulation. A preferred alk. dispersing agent is NH4OH. A dispersion contg. padimate O 4.00, ethylcellulose 1.0, 28% NH4OH 0.40, myristic acid 0.40, and H2O 4.20 was mixed with a dispersion contg. Carbopol-940 0.25, EtOH 12.00, padimate O 4.00, ethylhexyl p-methoxycinnamate 4.00, water 69.70, and 28% aq. NH4OH 0.05% by wt. to give a sunscreen cream.				
ST	sunscreen ethylcellulose alk dispersant				
IT	Alkanes, biological studies				
	Esters, biological studies				
	Ethers, biological studies				
	Paraffin oils				
	Siloxanes and Silicones, biological studies				
	Soaps				
	RL: BIOL (Biological study)				
	(sunscreens contg. ethylcellulose and alk. dispersants and)				
IT	Fatty acids, compounds				
	RL: BIOL (Biological study)				
	(Cl2-18, salts, sunscreens contg. ethylcellulose and alk. dispersants and)				
IT	Surfactants				
	(anionic, sunscreens contg. ethylcellulose and)				
IT	Siloxanes and Silicones, biological studies				
	RL: BIOL (Biological study)				
	(di-Me, sunscreens contg. ethylcellulose and alk. dispersants and)				
IT	Alcohols, biological studies				
	RL: BIOL (Biological study)				
	(fatty, sunscreens contg. ethylcellulose and alk. dispersants and)				
IT	Fatty acids, compounds				
	RL: BIOL (Biological study)				
	(salts, sunscreens contg. ethylcellulose and alk. dispersants and)				
IT	Sunburn and Suntan				
	(sunscreens, water-resistant, ethylcellulose and alk. dispersants and anionic surfactants in)				
IT	9004-57-3, Ethyl cellulose				
	RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)				
	(sunscreens contg.)				
IT	98-11-3D, Benzenesulfonic acid, alkyl esters, salts 7664-93-9D, Sulfuric acid, alkyl esters 34870-92-3D, Polyoxyethylene sulfate, alkyl esters, salts				
	RL: BIOL (Biological study)				
	(sunscreens contg. ethylcellulose and)				
IT	104-28-9, 2-Ethoxyethyl-p-methoxycinnamate 110-97-4 112-80-1,				

9-Octadecenoic acid (Z)-, biological studies **118-56-9**,
 3,3,5-Trimethylcyclohexyl salicylate 118-60-5, 2-Ethylhexyl salicylate
 131-53-3, Dioxybenzone 131-57-7 **134-09-8**, Menthyl
 o-aminobenzoate 143-18-0, Potassium oleate 150-13-0, p-Aminobenzoic
 acid 151-21-3, Sodium lauryl sulfate, biological studies 544-63-8,
 Tetradecanoic acid, biological studies 575-61-1, Benzal phthalide
 1336-21-6, Ammonium hydroxide 4568-28-9, Triethanolamine stearate
 6197-30-4, 2-Ethylhexyl-2-cyano-3,3-diphenylacrylate 6938-94-9,
 Diisopropyl adipate 9003-13-8, Polyoxypropylene butyl ether 9005-64-5,
 Polyoxyethylene sorbitan monolaurate 9016-45-9, Polyoxyethylene nonyl
 phenyl ether 14779-78-3 16530-71-5, Ammonium myristate 21245-02-3,
 Padimate O 27436-80-2, Digalloyl trioleate 27503-81-7,
 2-Phenylbenzimidazole-5-sulfonic acid 36653-82-4, Cetanol 58817-05-3,
 Octyl-p-dimethylaminobenzoate 69532-92-9 111564-56-8 113284-00-7,
 Ethyl 4-(bis(hydroxypropyl)aminobenzoate 120599-30-6 120718-57-2
 RL: BIOL (Biological study)

(sunscreens contg. **ethylcellulose** and anionic surfactants
 and)

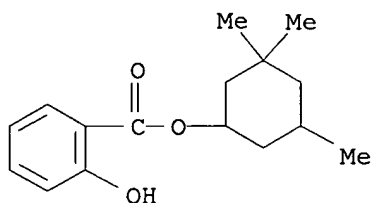
IT **118-56-9**, 3,3,5-Trimethylcyclohexyl salicylate **134-09-8**,
 Menthyl o-aminobenzoate

RL: BIOL (Biological study)

(sunscreens contg. **ethylcellulose** and anionic surfactants
 and)

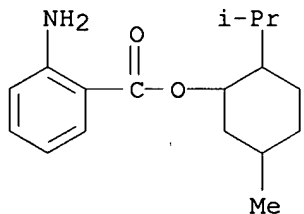
RN 118-56-9 HCAPLUS

CN Benzoic acid, 2-hydroxy-, 3,3,5-trimethylcyclohexyl ester (9CI) (CA INDEX
 NAME)



RN 134-09-8 HCAPLUS

CN Cyclohexanol, 5-methyl-2-(1-methylethyl)-, 2-aminobenzoate (9CI) (CA
 INDEX NAME)



L39 ANSWER 19 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1982:474012 HCAPLUS

DN 97:74012

TI Acrylic lacquer composition

IN Meyer, Walter C.

PA du Pont de Nemours, E. I., and Co. , USA
 SO Can., 26 pp. Division of Can. Appl. No. 306,669.
 CODEN: CAXXA4

DT Patent

LA English

IC C09D003-80

CC 42-7 (Coatings, Inks, and Related Products)

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CA 1124435	A2	19820525	CA 1981-370577	19810210
	US 4168249	A	19790918	US 1977-812335	19770701
	CA 1111180	A1	19811020	CA 1978-306669	19780630
PRAI	US 1977-812335		19770701		
	CA 1978-306669		19780630		

AB Binders for compns. for refinishing and repairing automotive enamels and lacquers contain poly(Me methacrylate) (I) [9011-14-7] 30-50, **cellulose** acetate butyrate (II) [9004-36-8] 20-40, phthalate ester plasticizers 5-15, polyester plasticizers 10-30, and carboxylated acrylic polymer-alkylenimine reaction products 1-10%. Thus, a mixt. of 40% I soln. 107.32, 25% II soln. 101.88, 15% high-viscosity II soln. 124.45, 85% polyester soln. (from coconut oil 275.7, ethylene glycol 185, and phthalic anhydride 394.7 parts) 56.48, 39% soln. of 81.0:14.6:4.4:2.9 Me methacrylate-Et acrylate-methacrylic acid copolymer-propylenimine condensate 17.50, 40% 3.25:322.15 2-(diethylamino)ethyl methacrylate-Me methacrylate copolymer [27027-16-3] soln. 45.69, 40% 18:82 Bu acrylate-Me methacrylate copolymer [25852-37-3] soln. 148.75, white mill base 168.47, acetone 12.97, EtOCH₂CH₂OAc 25.28, and PhMe 33.18 parts was sprayed on primed steel and baked 24 h at 43.degree. to give a 2-mil topcoat with initial adhesion and wet adhesion 7.4 and 1.9 before, and 7.8 and 2.2 after, 3 mo Florida weathering.

ST methacrylate polymer **coating**; acrylic polymer **coating** automobile; alkyd plasticizer acrylic **coating**; **cellulose** acetate butyrate **coating**

IT **Coating** materials
 (acrylic polymers-**cellulose** acetate butyrate-plasticizers, for automobile refinishing)

IT Plasticizers
 (alkyd resins and phthalate esters, for acrylic polymers for automobile refinishing)

IT Fatty acids, esters
 RL: USES (Uses)
 (esters with alkyd resins, plasticizers for acrylic **coatings**)

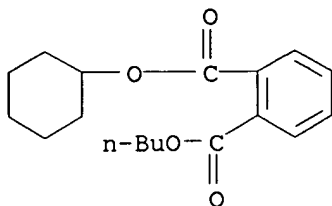
IT 75-55-8D, reaction products with carboxylated acrylic polymers 9004-36-8
 9011-14-7 25133-97-5D, reaction products with propylenimine 25852-37-3
 27027-16-3
 RL: TEM (Technical or engineered material use); USES (Uses)
 (**coatings**, for automobile refinishing)

IT **84-64-0** 85-68-7 25248-17-3D, esters with fatty acids
 27275-32-7D, esters with fatty acids
 RL: **MOA (Modifier or additive use)**; USES (Uses)
 (plasticizers, for acrylic polymer **coatings** for automobile refinishing)

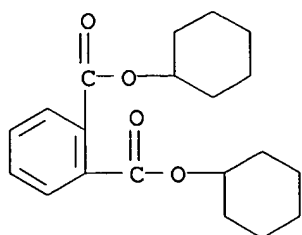
IT **84-64-0**
 RL: **MOA (Modifier or additive use)**; USES (Uses)
 (plasticizers, for acrylic polymer **coatings** for automobile refinishing)

RN 84-64-0 HCAPLUS

CN 1,2-Benzenedicarboxylic acid, butyl cyclohexyl ester (9CI) (CA INDEX NAME)



L39 ANSWER 20 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 1981:4973 HCAPLUS
 DN 94:4973
 TI Residual solvents in nitrocellulose **films**
 AU Plazanet, Jacques; Lippler, Remy
 CS Lab. Appl. Usine, Soc. Natl. Poudres Explos., Bergerac, Fr.
 SO Double Liaison - Chimie des Peintures (1980), 27(294), 21-38
 CODEN: DLCPDY; ISSN: 0291-8412
 DT Journal
 LA French
 CC 42-4 (Coatings, Inks, and Related Products)
 AB Basic solvents are generally retained preferentially in nitrocellulose coatings; the addn. of nongelatinizing plasticizers lowers the retention of solvent.
 ST solvent retention nitrocellulose coating; plasticization nitrocellulose solvent retention
 IT Coating materials
 (nitrocellulose, solvent retention in)
 IT Plasticization
 (of nitrocellulose coatings, solvent retention in relation to)
 IT Castor oil
 Polyethers
 RL: USES (Uses)
 (plasticization by, of nitrocellulose coatings, solvent retention in relation to)
 IT 76-22-2 77-89-4 80-39-7 **84-61-7** 84-66-2 84-69-5
 84-74-2 84-76-4 84-77-5 103-23-1 105-58-8 117-81-7 123-95-5
 131-11-3 131-16-8 131-18-0 605-45-8 640-61-9 1077-56-1
 1680-31-5 6627-45-8 13440-22-7 26761-40-0 75899-65-9 75923-41-0
 75923-42-1
 RL: USES (Uses)
 (plasticization by, of **nitrocellulose** coatings, solvent retention in relation to)
 IT **84-61-7**
 RL: USES (Uses)
 (plasticization by, of **nitrocellulose** coatings, solvent retention in relation to)
 RN 84-61-7 HCAPLUS
 CN 1,2-Benzenedicarboxylic acid, dicyclohexyl ester (9CI) (CA INDEX NAME)



L39 ANSWER 21 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 1978:122866 HCAPLUS
 DN 88:122866
 TI Dimensionally stable, nitrocellulose coated cellophane
 IN Taylor, John S.; Grantham, William G.
 PA FMC Corp., USA
 SO U.S., 5 pp.
 CODEN: USXXAM
 DT Patent
 LA English
 IC B44D001-092
 NCL 428536000
 CC 43-3 (Cellulose, Lignin, Paper, and Other Wood Products)
 Section cross-reference(s): 42

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4072785	A	19780207	US 1974-486025	19740705
PRAI	US 1974-486025		19740705		
AB	Coating plasticized regenerated cellulose (I) [9004-34-6] film with a waterproof and solvent-sealable nitrocellulose (II) compn. gave a material in which plasticizer migration was min. Thus, a I film was passed through a 6% aq. polyethylene glycol (III) [25322-68-3] bath, dried, coated with a 15% soln. of II 46.5, dialkyl phthalate 35.0, resin 30, paraffin wax 6.0, and clay 1.8 parts in org. solvent, and dried to give a specimen with good oven blocking (4 rating, scale 1-5), poor wetting (4 rating, scale 1-5), heat seal 272 g, and 8.6% III.				
ST	polyoxyethylene plasticized cellulose film ; nitrocellulose coating compn cellulose				
IT	Clays, uses and miscellaneous Paraffin waxes and Hydrocarbon waxes, uses and miscellaneous RL: USES (Uses) (nitrocellulose contg. additives and, coatings of, on plasticized regenerated cellulose film)				
IT	Coating materials (nitrocellulose contg. additives, on plasticized regenerated cellulose film)				
IT	84-61-7 27987-25-3 RL: USES (Uses) (nitrocellulose contg. additives and, coatings of, on plasticized regenerated cellulose film)				
IT	9004-67-5 RL: USES (Uses) (regenerated cellulose plasticized with polyethylene glycol and, coatings on, nitrocellulose contg. additives as)				
IT	9003-08-1				

RL: USES (Uses)
 (regenerated cellulose plasticized with polyethylene glycol and, coatings on, of nitrocellulose contg. additives)

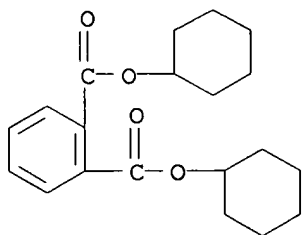
IT 25322-68-3
 RL: USES (Uses)
 (regenerated cellulose plasticized with, coatings on, of nitrocellulose contg. additives as)

IT 9004-34-6, uses and miscellaneous
 RL: USES (Uses)
 (regenerated, coating of plasticized, with nitrocellulose contg. additives, waterproofing by)

IT **84-61-7**
 RL: USES (Uses)
 (**nitrocellulose** contg. additives and, coatings of, on plasticized regenerated **cellulose film**)

RN 84-61-7 HCAPLUS

CN 1,2-Benzenedicarboxylic acid, dicyclohexyl ester (9CI) (CA INDEX NAME)



L39 ANSWER 22 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1975:549409 HCAPLUS

DN 83:149409

TI Heat-sealable cellulose hydrate foil

IN Reiss, Werner

PA Hoechst A.-G., Fed. Rep. Ger.

SO Ger., 4 pp.
 CODEN: GWXXAW

DT Patent

LA German

IC C08L; C08J

CC 43-3 (Cellulose, Lignin, Paper, and Other Wood Products)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 1720127	A	19710603	DE 1967-K62510	19670608
	DE 1720127	B2	19750619		
	DE 1720127	C3	19820107		
PRAI	DE 1967-K62510		19670608		

AB Coating the **cellulose** hydrate (I) [11097-73-7] **films** with a compn. contg., **nitrocellulose**, plasticizer, resins, paraffin, and lubricant gave heat-sealable sheet with low H2O vapor permeability. Thus, 15% dispersion of I 100, glycerol resinate 20, dibutyl phthalate [84-74-2] 28, dicyclohexyl phthalate [84-61-7] 45, paraffin 4, ethylene glycol-montan wax ester 4, and chalk 3 parts in PhMe-acetate mixt. was applied on both sides of the I **film** (base wt. 30 g/m2) contg. 17% humectant and 7.5% H2O, and dried to give a specimen with 3 g/m2 coating wt., 63.degree. automatic safety, 150-200 g

heat-sealing strength, and 8 g/m2 H2O vapor permeability in 24 hr.

ST cellulose hydrate heat sealing; nitrocellulose heat sealing coating;
phthalate heat sealing coating; glycerol resinate heat sealing

IT Chalk
RL: USES (Uses)
(coatings, contg. nitrocellulose and plasticizers, on cellulose hydrate
films)

IT Montan wax
RL: USES (Uses)
(esters with ethylene glycol, coatings, contg. nitrocellulose and
plasticizers, on cellulose hydrate **films**)

IT Resin acids and Rosin acids
RL: USES (Uses)
(esters with glycerol, coatings, contg. nitrocellulose and
plasticizers, on cellulose hydrate **films**)

IT Coating materials
(nitrocellulose compns., on cellulose hydrate **films**,
heat-sealable)

IT 1,2,3-Propanetriol, ester with resin acids
1,2-Ethenediol, ester with montan wax
RL: USES (Uses)
(coatings, contg. nitrocellulose and plasticizers, on cellulose hydrate
films)

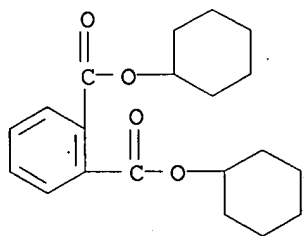
IT **84-61-7** 84-74-2
RL: USES (Uses)
(coatings, contg. **nitrocellulose** and resins, on
cellulose hydrate **films**)

IT 11097-73-7
RL: USES (Uses)
(**films**, coatings on, of nitrocellulose compns.,
heat-sealable)

IT **84-61-7**
RL: USES (Uses)
(coatings, contg. **nitrocellulose** and resins, on
cellulose hydrate **films**)

RN 84-61-7 HCAPLUS

CN 1,2-Benzenedicarboxylic acid, dicyclohexyl ester (9CI) (CA INDEX NAME)



L39 ANSWER 23 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 1972:100581 HCAPLUS
DN 76:100581
TI Plastic **films** with labeled heat sealing papers
AU Placzek, L.; Plaatje, E.
CS Fed. Rep. Ger.
SO Verpackungs-Rundschau (1971), (Sonderausgabe), 20-5
CODEN: VPKRAV; ISSN: 0341-7131

DT Journal
 LA German
 CC 36 (Plastics Manufacture and Processing)
 AB Labeling of plastic **film** and heat sealing with heat-activatable papers are described. The compn. of the material, smoothness of the surface, and its contamination affect the adhesive strength when labeling different surfaces. Observations and tests in the lab. and in practice are described. Hot-adhesive paper is paper having a **coating** of a heat-activatable material, which becomes sticky and suitable for sealing on heating. The **coatings** consist of poly(vinyl chloride) [9002-86-2], polyacrylates, poly(vinyl acetate) [9003-20-7], and other thermoplastics. Dicyclohexyl phthalate [84-61-7] or diphenyl phthalate [84-62-8] are suitable plasticizers. Sealing to wool, cotton, and linen is rather poor because the surface is too rough. Sealing to paper, boxboard, and parchment is very good if the surfaces have a certain amount of roughness. This is also true of cellophane, soft PVC, polystyrene [9003-53-6], **cellulose** triacetate [9012-09-3], and polypropylene [9003-07-0]. Sealing to saran, polyester, hard PVC, and rubber hydrochloride is moderately effective. Adhesion to untreated polyethylene [9002-88-4] and polyamides is poor. Interlaminar strength for bonding to various materials is shown graphically and values initially and after 2, 4, and 6 weeks are given. Wetting angles with water and with Palatinol C (a phthalic acid ester) are also given. Dusting of cellophane-saran **films** with calcium carbonate [471-34-1], starch [9005-25-8], or poly(vinyl alc.) [9002-89-5] reduced adhesion of the **film** to heat-activatable paper greatly, as is shown graphically. The paper is especially useful for labeling ampuls.

ST plastic **film** labeling; heat activatable paper; labeling plastic **film**; paper heat activatable; adhesive strength hot labeling; phthalic plasticizer label adhesives; PVC labeling; polyethylene labeling; polyamide labeling; saran labeling; polypropylene labeling; **cellulose** triacetate labeling; polystyrene labeling

IT Cotton
 Paper
 Wool
 (adhesion to, heat sealable papers, surface properties in relation to)

IT Cellophane
 Paperboard
 Polyesters, uses and miscellaneous
 Rubber hydrochloride
 RL: USES (Uses)
 (adhesion to, of heat sealable paper surface properties in relation to)

IT Acrylic polymers
 RL: USES (Uses)
 (adhesives contg., for heat resealable papers)

IT Textiles
 (linen, adhesion to, heat sealable papers, surface properties in relation to)

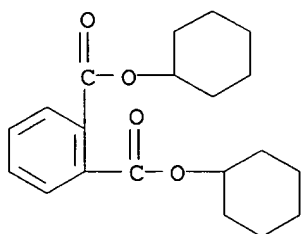
IT Adhesives
 (plasticized vinyl compd. polymers, for heat sealable papers)

IT 9002-85-1 9003-07-0 9012-09-3
 RL: USES (Uses)
 (adhesion to, heat sealable papers, surface properties in relation to)

IT 9003-53-6
 RL: PRP (Properties)
 (adhesion to, heat sealable papers, surface properties in relation to)

IT 9002-86-2 9003-20-7
 RL: USES (Uses)

(adhesives contg., for heat-sealable papers)
 IT 471-34-1, uses and miscellaneous 9002-89-5 9005-25-8, uses and miscellaneous
 RL: USES (Uses)
 (dusting of surfaces with, effect on adhesive action)
 IT 84-61-7 84-62-8
 RL: MOA (Modifier or additive use); USES (Uses)
 (plasticizers, for vinyl compd. polymer adhesives)
 IT 84-61-7
 RL: MOA (Modifier or additive use); USES (Uses)
 (plasticizers, for vinyl compd. polymer adhesives)
 RN 84-61-7 HCAPLUS
 CN 1,2-Benzenedicarboxylic acid, dicyclohexyl ester (9CI) (CA INDEX NAME)



L39 ANSWER 24 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 1970:102030 HCAPLUS
 DN 72:102030
 TI Wetttable, heat-sealable coating for regenerated cellulose film
 IN Hullot, Pierre
 PA Cellophane Investment Co. Ltd.
 SO Ger. Offen., 14 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 IC C09D
 CC 43 (Cellulose, Lignin, Paper, and Other Wood Products)
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 1931028	B2	19740606	DE 1969-1931028	19690619
	DE 1931028	C3	19750206		
	FR 1583981	A	19691212	FR 1968-155993	19680621
	BE 734643	A	19691201	BE 1969-734643	19690616
	NL 6909215	A	19691223	NL 1969-9215	19690617
	GB 1223515	A	19710224	GB 1969-1223515	19690620
	US 3725098	A	19730403	US 1971-189831	19711018
PRAI	FR 1968-155993		19680621		
	US 1969-808297		19690318		

AB The wettability of films with heat-sealable coatings with water-contg. liq. adhesives is improved by adding waxes of OH no. 150-400 to the coating s. A regenerated cellulose film of wt. 30 g/m2 and contg. glycerol 15, water 9, and a cationic melamine-HCHO resin 0.3% was coated on both sides with a compn. contg. nitrocellulose 48, di-Bu phthalate 17, dicyclohexyl phthalate 17, ethylene glycol ester of a terpene-maleic acid adduct 10, a glycerol ester of polymd. rosin (Polypale Ester 10) 5, maleic acid 2, bentonite 0.5, and 12-hydroxystearyl alc. 2 g

as an 18% solids soln. in 11:9 EtOAc-toluene and dried, giving a coating which was easily wetted by aq. adhesives and printing ink solvents. The film had a permeability value of 6000 g water/hr/100 m² at 39.degree. and 100% relative humidity. Films sandwiched together with a 50% poly(vinyl acetate) emulsion adhesive had bond strength of 235 g after 5 min and 590 g after 1 day. Glycerol tris(12-hydroxystearate) and glycerol 12-hydroxystearate were also used as hydroxylated waxes.

ST heat seal coatings wettable; coatings heat seal wettable; wettable heat seal coatings; waxes hydroxy; hydroxy stearic compds; printable heat seal coatings; regenerated cellulose films coatings

IT Adhesives, uses and miscellaneous
(acetic acid vinyl ester polymers, for coated cellulose films)

IT Coating materials
(nitrocellulose contg. propanetriyl hydroxyoctadecanoate, on regenerated cellulose films)

IT Terpenes
RL: USES (Uses)
(resins, coatings of, contg. nitrocellulose on regenerated cellulose films)

IT 9003-20-7, uses and miscellaneous
RL: USES (Uses)
(adhesives, for coated cellulose films)

IT 9004-70-0
RL: USES (Uses)
(coatings of, contg. dibutyl phthalate and regenerated cellulose films)

IT 84-61-7 84-74-2 139-44-6 1323-43-9 2726-73-0
RL: USES (Uses)
(coatings of, contg. nitrocellulose on regenerated cellulose films)

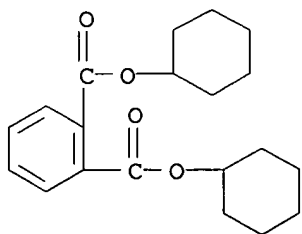
IT 56-81-5, uses and miscellaneous
RL: USES (Uses)
(regenerated cellulose films contg., coatings on)

IT 9004-34-6, uses and miscellaneous
RL: USES (Uses)
(regenerated, glycerol-contg., coatings on)

IT 84-61-7
RL: USES (Uses)
(coatings of, contg. nitrocellulose on regenerated cellulose films)

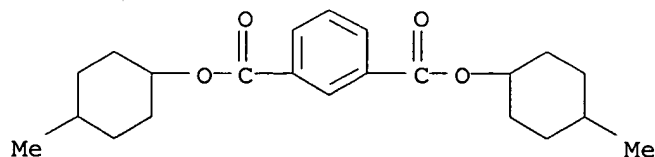
RN 84-61-7 HCAPLUS

CN 1,2-Benzenedicarboxylic acid, dicyclohexyl ester (9CI) (CA INDEX NAME)



AN 1961:46237 HCAPLUS
 DN 55:46237
 OREF 55:8937e-g
 TI Isophthalic acid and terephthalic acid ester plasticizers
 IN Fawcett, Eric W. M.; Foster, Hugh D.; Mott, Anthony
 PA Howards of Ilford Ltd.
 DT Patent
 LA Unavailable
 CC 31 (Synthetic Resins and Plastics)
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 853999		19601116	GB	
AB	Plasticizer esters have the general formula, ROOCC ₆ H ₄ COOR', in which OOCC ₆ H ₄ COO is the isophthalic acid (I) or terephthalic acid radical, and R and R' are cyclohexyl radicals or cyclohexyl radicals mono-substituted by an alkyl group. The preferred esters are dicyclohexyl isophthalate (II), bis(4-methylcyclohexyl) isophthalate, dicyclohexyl terephthalate and bis(4-methylcyclohexyl) terephthalate. The esters are particularly suitable for imparting heat-sealing and H ₂ O-vapor impermeability properties to nitrocellulose films. Thus, I 83, cyclohexanol 235, p-toluenesulfonic acid 2.5, and toluene 130 g. were refluxed, and the H ₂ O of esterification was sepd. at 125-35.degree. for 20 hrs.; 17.8 ml. H ₂ O sepd. The recovered pure product was 156 g. II with a m.p. of 33.degree. (yield 94.7%).				
IT	Plasticizers (bis(4-methylcyclohexyl) and dicyclohexyl esters of isophthalic and terephthalic acids as, for nitrocellulose)				
IT	Cyclohexanol, 4-methyl-, terephthalate Isophthalic acid, bis(4-methylcyclohexyl) Isophthalic acid, dicyclohexyl esters Terephthalic acid, bis(4-methylcyclohexyl) (as plasticizers for nitrocellulose)				
IT	Cyclohexanol, isophthalate Cyclohexanol, terephthalate (plasticizers for nitrocellulose)				
IT	18249-08-6, Cyclohexanol, 4-methyl-, isophthalate 18699-51-9, Terephthalic acid, dicyclohexyl ester (as plasticizers for nitrocellulose)				
IT	9004-70-0, Nitrocellulose (plasticizers for, bis(4-methylcyclohexyl) and dicyclohexyl esters of isophthalic and terephthalic acid)				
IT	18249-08-6, Cyclohexanol, 4-methyl-, isophthalate 18699-51-9, Terephthalic acid, dicyclohexyl ester (as plasticizers for nitrocellulose)				
RN	18249-08-6 HCAPLUS				
CN	1,3-Benzenedicarboxylic acid, bis(4-methylcyclohexyl) ester (9CI) (CA INDEX NAME)				



RN 18699-51-9 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, dicyclohexyl ester (9CI) (CA INDEX NAME)

